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LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interests of Lake Carriers, and improve the character of the service rendered to the public.

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RUSSIAN INLAND NAVIGATION.

The extent and importance of the commercial movement on the inland waterways of Russia are testified to by some statistics just published by the Allgemeine Schifffahrts-Zeitung. In European Russia there are open to the navigation of steamers or barges no less than 862 rivers, 39 lakes, and 38 canals, having a total length of 83,000 kilometres, 26,000 of which, however, are navigable for barges only. The longest uninterrupted stretches in the northern network of waterways are: that from Archangel to St. Petersburg, 3,900 kilometres, and that from Astrachan to Archangel, 4,500 kilometres; while in the Southern network the longest is between Kherson and Riga, 2,400 kilometres. In Asiatic Russia there are available for navigation 188 rivers for a total length of 118,000 kilometres, 4 lakes with 1,000 kilometres, and 1 short canal, 7 kilometres. Of these 119,000 kilometres, however, only 35,000 can be navigated by steamers. The first steamer made its appearance on the Neva in the year 1813, and up to 1880 the progress made in steam was very slow; but since 1881 the number of steamers has been trebled. By reason of the great depth of some of the rivers, Russia enjoys the advantage of being in the position to employ vessels of really large dimensions in her inland navigation, and already in the year 1895 she possessed about 800 river craft of more than 1,600 tons capacity, and, as regards the cost of water carriage, in the last few years the tariff has not been more than a fifth of the railway tariff.

The total traffic on the Russian inland waterways in 1898 (last year's statistics not yet being available) amounted to 28,000,000 tons, which is about equal to that of the railways in that year. The number of craft engaged in the inland navigation of Asiatic Russia in the year 1897 was 1,200; 540 of them (140 being steamers) plied on the Obi, and 310 (130 being steamers) on the Amoor. Between the years 1893 and 1897 the traffic on the waterways of the Russian Empire increased no less than 50 per cent., which is somewhat remarkable considering that but very little official assistance has been given in the maintenance and extension of the navigation facilities. It is only recently, indeed, that, in response to representations made by the parties interested, serious dredging operations have been entered upon to counteract the constant silting up of the River Volga.

The commercial importance of the Neva, which ranks next after the Volga in the inland traffic of Russia, might also be considerably enhanced if Lake Ladoga were made accessible to large vessels by the removal of the bar at the entrance into the lake. If this were done, sea-going ships could reach Lake Ladoga from the Gulf of Finland, and af-

ford a far better opportunity than at present exists for exporting the natural products of the districts abutting on the lake. Besides the Neva and the Volga, there is only one more waterway in European Russia offering facilities for a heavy traffic, and that is the so-called Marien canal system, consisting of a great extent of artificial cutting, and extending from the Volga to St. Petersburg via Rybinsk, Onega, Lake Ladoga. The greater part (70 per cent.) of the whole inland water traffic in European Russia is carried on through the Marien canal system and on the Volga, while only about 22 per cent. falls to the rivers Dnieper, Dwina, Niemen, and Vistula put together, and only 8 per cent. to the River Bug and the other smaller channels. The principal ports to which goods are brought from inland by water are St. Petersburg (which receives 55 per cent. of the whole), Riga, Kherson, Rostoff, and Archangel.

Many of the waterways are wholly or partially rendered unnavigable by ice for four, five and sometimes six months in the year, and in dry summers the operations are also considerably curtailed for want of water; but the movement on almost all of them during the open season is exceedingly active.

SWEDEN'S NEW IRON ORE MINES.

Samuel Hill, son-in-law of James J. Hill, and prominent in railroad circles at Minnesota, has just returned from abroad. In reference to the new railroad being constructed in northern Sweden under the Arctic circle, he says: There have been extensive discoveries of iron ore in that region and the new road now extends 250 miles from the iron range to the Baltic Sea. In the other direction a railroad is being graded and will be finished within a year that will enable this ore to be shipped to Atlantic tidewater. Mr. Hill says that, unlike the Minnesota ore, which is as coarse as gravel, the Swedish ore is as fine as sand. "It seems strange," he continued, "that the best railroad in Europe, from a tonnage standpoint, should be laid under the Arctic circle. These trains haul forty cars, each having a capacity of twenty-five tons or what railroad men would call trains of 1,000 revenue tons. When we remember that the discovery of soft iron ore in Minnesota affected Britain's trade more seriously than anything that had happened in twenty years, the wonderful possibilities following the shipment of this across the channel to England becomes apparent. Returning cargoes of coal for the operation of the road and for general purposes still further indicate the importance of this ore discovery and the transportation problem involved in it. Thus far no coal has been discovered tributary to the ore."

ERIE CANAL SEASON CLOSED.

The Erie canal season has been closed officially, but it will be several days before the state waterways will be clear of boats. The canal season has not been as good in point of tonnage as that of the year 1899, when 3,086,551 tons of freight, with a value of \$92,786,712, were carried. While the State Superintendent of Public Works will not be in possession for several weeks of the figures necessary for the compilation of complete statistics, yet it is believed that the total tonnage this year will be about 10 per cent. less than last year. That loss would reduce it to about 3,300,000 tons, which would be the lowest, with the exception of 1898, when it was 3,360,063, and since 1851 when it was 2,582,783. The loss in tonnage this year is due, it is believed, to the large number of breaks and leaks which took place during the first few weeks of navigation. The most serious of these were at the Aqueduct, near Schenectady, on the Erie Canal, and at Wilbur's Basin, on the Champlain Canal. These and less serious breaks were caused by severe storms.

NEW ATLANTIC CABLE PROPOSED.

Announcement has been made that the Dominion Government of Canada expects to have a short direct cable laid between Scotland and Belle Isle, on the Labrador coast of Canada, via the North of Ireland, thus giving Canada a new cable line to Great Britain. It is hoped that Denmark will join in the project with the idea of having the line extended from Scotland to Denmark. In such case, Canada would have a new cable system from Quebec to Copenhagen, connected with British, Irish and Continental telegraph systems. A member of the cabinet states that Canada's share of the cost would only be \$875,000, and that the project would reduce the cost of cable messages one-half. In this connection the government of New South Wales is taking steps to carry out the Pacific cable scheme, so far as the contribution of that colony is concerned. The lowest tender for the line is £1,975,000, but it appears that including extras, the total cost of the cable will be £2,066,000, whereas the original estimated cost was £1,730,650. The contributors to the cost of construction are Great Britain and Canada, each of them paying one-third of the cost. It is estimated that the cable will take 18 months to lay and complete.

CLASSIFICATION OF NAVAL VESSELS.

The Secretary of the Navy has addressed identical letters to the Senate and House Committees on Naval Affairs, in which he calls attention to the pressing need for a reclassification of all vessels in the United States navy. It is pointed out in the letter that the many changes which have occurred in recent years in naval construction and the changes made by the personnel law in the rank of officers, necessitates radical change in classification that the laws of assigning officers of certain grades to the command of certain rate vessels may be followed. In this connection the Secretary has submitted with his own letter a long letter of recommendation which was prepared by the Bureau of Navigation. The Bureau recommends that torpedo boats, torpedo boat destroyers, tugs, sailing ships and receiving ships be carried as at present on the Navy Register, and that all other vessels be rated as follows: 1st rate, men-of-war only 8,000 tons and above; 2d rate, men-of-war over 4,000 tons and under 8,000 tons, and converted and auxiliary vessels of 6,000 tons and above, except refrigerating ships, distilling ships, tank ships, repair ships, hospital ships and other vessels constructed or equipped for special purposes; 3d rate, men-of-war and converted auxiliary vessels from 1,000 to 4,000 tons, and colliers, refrigerating ships, supply ships, distilling ships, tank steamers, repair ships, hospital ships and other vessels constructed and equipped for special purposes of 4,000 tons and above; 4th rate, all other vessels.

The report of the Bureau of Navigation on this subject says: "It is considered particularly desirable that we should cease to class as first rates, such vessels as the Chicago, Columbia and Puritan. First rates should only include ships of the line. Although the foregoing will systematize the ratings of vessels on account of their diverse duties greater latitude should be allowed by regulations as to the rank of officers to command the several rates. It is, therefore, recommended that the regulations now at variance with the law, be changed to provide that commanders may be permitted to command second and third rates."

The secretary submitted the following resolution for the consideration of the committees: That the President of the United States be authorized to establish, and from time to time modify as the needs of the service may require, a classification of vessels of the Navy, and to formulate appropriate rule governing assignments to command of vessels and squadrons. This bill was introduced in the Senate Dec. 4, by Senator Hale.



BUFFALO.

Special Correspondence to The Marine Record.

The Great Eastern elevator will be rebuilt during the winter. A mortgage of \$350,000 was filed by the elevator company today to the Fidelity Trust & Guarantee Co. and an issue of bonds for a like sum will be made by the company to cover the mortgage.

The display of storm warnings on Lakes Michigan, Huron, Erie and Ontario will be discontinued for the season after December 15, 1900, and on Lake Superior when the locks in the canal at Sault Ste. Marie are closed. The display of storm warnings on Lake Peppin was discontinued after November 30, 1900.

The case of the Bessemer Steamship Company against the Northern Steamship Company for the collision between the North Star and the Siemens and Holly will be heard before Judge Hezel, at this port. The collision took place November 27, 1899, in St. Mary's River. The libellant claims \$30,000 damages, and the cross-libel is for \$15,000.

The Wabash Line steamers Russell Sage and John C. Gault and the other two steamers of the line will lay up for the winter at Buffalo. Both vessels will be rebuilt during the winter months, and when they start next spring they will be practically new boats. They are wooden vessels, twenty years old, but they have been well kept up and given everything they needed each season.

The Buffalo correspondent of the Black Diamond says: The collapse of the old coal dock, formerly used by H. K. Wick & Co. for harbor fueling, is a great calamity, especially as there was loss of life with it. The dock has been used this season by Pickands, Mather & Co. for stocking iron ore as well as fueling. The ore was laid on too heavy, and it has gone down into the ground, displacing everything about it with a rush.

The suit for the sinking of the schooner John Martin in St. Clair river was filed against the steamer Yuma. Damages to the amount of \$36,500 are demanded. The date for the hearing has not been set. The case of the Bessemer Steamship Company against the Northern Steamship Co. for the collision between the North Star and the Siemens and Holly will be heard before Judge Hazelton Tuesday. The collision took place Nov. 27, 1899, in St. Mary's river. The libellant claims \$30,000 damages, and the cross libel is for \$15,000.

A Buffalo shipper, who has been through the West, says that he is surprised at the condition of the docks, little coal as he expected to find there. As a rule the smaller ports are pretty well cleaned out, and such big receivers as Milwaukee have only just enough to meet the local city trade. The custom house figures show a further increase in water shipments, though it is plain that an entire recovery of business is not to take place this fall. The amount shipped last week was 66,840 tons, of which 29,300 tons went to Duluth-Superior, 27,400 tons to Chicago, 6,500 tons to Milwaukee, 1,600 tons to Racine, 1,000 tons to Toledo, 800 tons to the Sault, and 240 tons (soft) to Port Dover.

The Connors syndicate now declares that the Montreal elevators will be built by next season and shows some heat at the adverse criticism leveled at it by the harbor commissioners on account of the delay. G. T. Smith of the Connors syndicate states that he is of the opinion that he would be able to satisfy the harbor commissioners that no time had been wasted in prosecuting operations on the new elevator. The board of harbor commissioners recently sent a written communication to the syndicate asking for definite information as to contracts and as to the expected time of completion. Mr. Smith said that he was replying immediately to the commissioners. His answer will be received at the next meeting of the board. "Of course, we will have the elevator finished in 1901," said Mr. Smith. "It will be in running order within three months of the opening of navigation." The syndicate insists that it is and has been working as many machines on the pile driving, i. e., two, notwithstanding Engineer Kennedy's statement that more could be used.

An automatic stoker for steamships is now being considered as a labor-saving device. The sweltering, fire-blistered stoker of other days is now in danger of getting out of the frying pan. A machine has been tested at Tacoma, that, according to report, has proven a success, and engineers think will help to solve the problem of cheap navigation. It is claimed that it effects a large saving in coal as well as in the cost of labor. It is fed with pulverized coal and it can be placed in a steamboat or any place where a heat-generating apparatus is used. To any one who, for once in his life, has descended into the infernal regions of an ocean steamship and escaped therefrom with nothing but a bath in his own perspiration, this machine will be above reproach, and to the fireman himself, if he loses his job, he saves his eyes. We can only hope that the report is not a pipe dream.—The Age of Steel.

CLEVELAND.

Special Correspondence to The Marine Record.

The Cleveland Pneumatic Tool Co., of Cleveland, has increased its capital from \$25,000 to \$75,000.

The first steamer of the recent Gilchrist order will be launched at the Lorain yards of the American Ship Building Co., on Saturday. She will be christened the Saturn.

The Iron Ore Association, which is composed of the concerns which own ore properties in the Lake Superior district, will not fix the price of ore for next year's deliveries until the 25th of January, when a meeting will be held here for that purpose.

Capt. Gould opens his nautical school this week as announced in the advertising columns. Quite a large number of students are already booked, and the outlook is that the captain will have all that he can attend to until navigation opens next spring.

The local lodge of the Shipmasters' Association will hold the first meeting of the season on Friday. The annual meeting, when officers will be elected, will be held Friday, Dec. 28. The grand lodge will meet at Port Huron the last Tuesday in January.

The collision between the steamer George J. Gould and the passenger steamer State of New York at Toledo, Nov. 4, is being carefully investigated by the local inspectors at Toledo. Capt. Walter M. Crotwell, of the Gould, and Capt. John McAlpine, of the State of New York, were summoned to Toledo to tell their version of the accident before the local board of steamboat inspectors.

A message has been received at the office of Capt. George P. McKay, treasurer of the Lake Carriers' Association, to the effect that the lights at Bar Point and the Limekilns have been taken in for the winter. This leaves the worst passage about Lake Erie without lights at night, and vessels plying back and forth will find it to advantage, as they have done in former years, to lay up and wait for daylight before trying to proceed.

Two Cleveland tugs, the Selah Chamberlain and the William Rollar, owned by the Standard Contracting Co., were tied up by the United States authorities this week on the charge of violating the rules of the War Department in not dumping refuse within the limits designated for that purpose. It is claimed that on Nov. 13, they deposited dumpage to close the breakwater and outside of the prescribed dumping grounds. The penalty for the violation of the rules is a fine of from \$500 to \$2,500.

When the steamer City of Cleveland, of the Detroit & Cleveland Navigation Co., left here on Monday night, the season was over for the company. This ends one of the best seasons that the line has ever known, both from the point of passengers and freight carried. The season was especially strong for excursions, including the daylight boat and the short rides. The season really ends with the annual dinner of general manager Carter, which will be given on board the steamer City of Detroit, at Detroit.

The announcement was made that William A. Thorpe, the chief steward of the Cleveland & Buffalo Transit Co., has tendered his resignation, to take effect January 1, and that C. C. Shantz, now manager of the Oriental Hotel, at Detroit, will succeed him. Mr. Thorpe, it is said, has decided to go to Buffalo and take charge of one of the new hotels that is going up there to take care of the Pan-American Exposition trade. Mr. Shantz used to be steward of the City of Cleveland, and is an old hand at dining-room service on ship board.

After having served well as United States engineer in charge of the River and Harbor work of the Cleveland district for a period of nine years, and after having been wined and dined, and bade farewell in every manner known to a cordial people, and followed by many personal good wishes, Col. Jared A. Smith, accompanied by his wife, left here this week to assume his new duties at the head of the work at San Francisco. Col. Smith had remained here several days to close up some accounts which he had opened in behalf of the Government.

The officers of the Cleveland & Buffalo Transit Co., T. F. Newman, general manager, and W. F. Herman, general passenger agent, have just returned from Buffalo, where they looked over the prospects for business next season for the Pan-American Exposition. They have been making the preliminary arrangements for handling their passengers from the boats to the exposition grounds, and while nothing has been done, it is said that the C. & B. people are expecting to do a business next year about 100 per cent. larger than the company has ever handled.

The first regular meeting of Harbor No. 42, of the American Association of Masters and Pilots will be held next Monday evening at their hall on Superior street. At that time they will arrange for an open meeting to be held Tuesday evening, at which they will have an address by Grand Capt. John G. Siler, of East Providence, R. I., who has announced his intention of paying the harbor a visit at that time. It is expected that other addresses will be made. The meeting is open to all of the masters and pilots in the city, and an effort is to be made to have a large turnout.

A decision was reached this week by the Maytham Towing Co., to maintain an office in this city all winter, the object being to continue the competition to the Great Lakes Towing Co. Instead of the small boats now in operation, the decision is to have two big tugs, and the Maxwell A., will be brought back from Buffalo for winter work. Capt. Lautenslager announces that negotiations are in progress for other tugs, which will be added to the fleet here in the spring. It

is further stated from another source that the Maytham Co., is looking to place a contract for six new tugs to be ready for service by the opening of navigation.

The schooner Charles Foster, built in 1876, foundered off Erie, Pa., last Saturday, with the loss of all hands. A few years ago the vessel was owned by Valentine Fries, of Milan, O., from whom the boat was purchased by Capt. James Corrigan. The vessel's gross tonnage was 997, net 947. The Foster had a 227-foot keel and a 36-foot beam. The loss of the Foster's crew runs the number of lives lost on the lakes this season up to 118. The previous total of 110 was already the largest for many seasons. The Foster went down not far from the scene of the loss of the steamer John B. Lyon, earlier in the season, when nine men were drowned.

At a meeting of the executive committee of the Lake Carriers' Association, a date for the annual meeting was fixed. The meeting will be called at the Cadillac hotel at Detroit Jan. 16 and will probably last for three days. All the light-house officers and the river and harbor engineers will be invited to attend the meeting. An effort will also be made to get the Canadian vessel owners to join the association. A resolution by Capt. M. M. Drake, of Buffalo, urging the New York state officials to improve the Erie canal was adopted. President W. C. Farington, Secretary C. H. Keep, Capt. J. J. H. Brown and Capt. M. M. Drake, of Buffalo, were the only out-of-town members that attended the meeting.

The season of navigation for 1900 is practically over and while a number of boats are still in service the amount of business transacted will not cut much figure, and there will be no change in carrying charges. There are still a number of vessels to load ore at \$1 and coal at 75 cents, and a few more charters may be made at the figures named if the predicted freeze up does not come. All will depend on the weather and some of the charters that have been made may be canceled. The ore movement will not be near as heavy as was predicted at the opening of the season. The general opinion at the start was that the shipments for the year would reach 20,000,000 tons by the lake. Movement will be nearly 1,500,000 tons below that figure.

DULUTH-SUPERIOR.

Special Correspondence to The Marine Record.

The cut of the mills on the Duluth-Superior harbor in 1899 was 423,000,000 feet and the cut during the season just closed 416,326,000 feet. It had been supposed a month ago that the final returns from the lumber mills would show that there was a slight increase over 1899, but it transpires, from the figures furnished by C. H. Bradley & Co., that there is a slight shortage. This is due to the lack of logs in the early part of the season, in turn due to low water in the rivers, and to a certain amount of curtailment by the mills when the price of lumber threatened to collapse last June.

Arrangements are already under way for the underwriting of the stock of the Cramp Ontario Steel Co., Ltd., which proposes to erect blast furnaces and a steel plant at Collingwood, on Georgian Bay, in the Province of Ontario, Can. The capital stock is to be \$5,000,000, of which \$2,000,000 is to be 7 per cent. cumulative preferred stock. Walter Kennedy, of Pittsburg, has been engaged as the consulting engineer, but matters have not progressed sufficiently to permit a statement in detail as to what will be built. It is almost a certainty that one or two blast furnaces will be erected.

Capt. B. B. Inman left here for Montreal, where he will on next Wednesday explain before the Chamber of Commerce of that city his proposed ice crushing boat. Capt. Inman claims that with this craft it will be possible to keep navigation open on the Great Lakes the year around. A company was formed some time ago by New York, Detroit and Ottawa capitalists for the purpose of building boats of this description, and \$1,000,000 was subscribed for that purpose, but the great advance of price of material caused the abandonment of the enterprise at that time. The proposed boats, each some 500 feet long, will not be simply ice breakers. They will be constructed of iron, at a slight advance over the ordinary cost of similar sized craft, and will be able to do a general passenger and freight transportation business.

The Duluth Licensed Tugmen's Protective Association held its first meeting of the season last Friday night. There was a large attendance, and, beginning next Wednesday, the meetings will be held regularly. The question receiving the most consideration was the probable disposition of the case brought by Capt. Walter Woods, former pilot of the tug Castle, against engineers F. W. Lee and Tracy Warren, which marine men are following closely. Capt. Woods complained to the government authorities that Lee and Warren refused to do their duty on the Castle because he was not a member of the tugmen's association, with the result that he lost his position. When the case came before the local steamboat inspectors, Inspector Monaghan decided in favor of Capt. Woods, holding in effect that a licensed engineer or officer was recreant to his oath to the government when he took the obligation accepted by all members of the tugmen's association, and he also recommended that the license of the engineers be suspended for six months. Inspector Chalk took a different view of the situation, and decided in favor of the engineers. Supervising Inspector Sloan, of Dubuque, Ia., will arrive at Duluth to hear the case. If he decides against the men, the association will appeal to the highest authority. Supervising General Inspector Dumont. The association feels that the settlement of this case means a great deal to its organization, and members intimate that the men may have had other reasons for not working with Woods, in addition to the fact of his not being a member of the association.

CHICAGO.

Special Correspondence to The Marine Record.

The whaleback steamer John B. Trevor left here Monday morning at 4 o'clock with the last cargo of grain for this season.

The steamer Thos. W. Palmer left here light for Milwaukee last Thursday morning. She is to receive alterations and repairs there.

The L. M. & L. S. Transit Co.'s whole fleet of steamers, comprising the Peerless, City of Traverse, Jay Gould and Osceola, have gone into winter quarters here.

The schooner West Side, Capt. M. L. Edwards, arrived here last Thursday with a cargo of 16,000 bushels of potatoes from Traverse City, Mich., for winter storage.

The steamer Arthur Orr, Captain John Massey, which arrived here light from Depot Harbor last Friday morning, made the round trip from this port in about 5½ days.

The steamer Tampa when going through the east draw of 18th street bridge on Saturday afternoon carried away several poles and stanchions and knocked over a platform.

J. B. Bates & Co., shipbuilders, are putting new fore-masts on the barges Middlesex and Robert L. Fryer and doing some repairs and deck calking on the barge Halsted.

Johnson, Knudson & Co., shipbuilders, are doing repair work on the steamers W. M. Egan, Plankinton, J. P. Fitzgerald, St. Paul, Lockwood, Thos. Cranage, John Owen, Tampa and Hadley.

The Northern Michigan line steamer Illinois, Capt. Wm. Finucan, left here Tuesday morning, Dec. 11th for Manitowish, where she will go into winter quarters. She has had a very successful season.

The Anchor line steamers Susquehanna and Codorus arrived here with large cargoes of merchandise Tuesday, Dec. 11th. Those steamers and the line's steamers Lehigh and Conestoga will go into winter quarters here. The Delaware and Clarion went to Milwaukee to lay up and receive repairs.

The steamer Merida met with considerable trouble Saturday afternoon when going up the river. She was coal laden and was drawing 18 feet of water, and the water in the river was at a low stage. She went aground on the La Salle street tunnel and remained about two hours. She stuck in the draw of the Northwestern R. R. bridge at Kinzie street nearly an hour and about the same time on the draw of Indiana street bridge.

Captain Thomas Williams of the schooner Libbie Nau celebrated his silver wedding Saturday evening, Dec. 8th, at a large hall corner of 48th and Lake streets. The celebration was attended by relatives and friends and nearly forty vessel captains and officers and their families. Speeches were made and many valuable presents were presented to the captain and his wife, after which an excellent turkey supper was served, with plenty of refreshments, and the celebration was kept up with dancing and good fellowship until the small hours of the morning.

Engineer George McDonald, aged 41 years, died at his residence, 1057 West North avenue, Chicago, Sunday, Dec. 9th, from cancer of the stomach, after several months illness. He was president of Licensed Tugmen's Protective Association No. 2, Chicago, and a member of the Knights of Pythias, and was held in high esteem by his comrades and friends. He leaves a widow and one daughter, 12 years old. The funeral took place Wednesday afternoon and was conducted by the L. T. P. A. and the K. of P. and was largely attended. The interment was at the Forest Home Cemetery.

The ceremony of unveiling the monument dedicated to the late Captain John W. Gillman, superintendent of the Goodrich Transportation Co., took place on Sunday afternoon, December 9th, at 3 o'clock. He died on January 31st last on a Chicago and North Western train while on his way to the Goodrich line shops at Manitowoc. In spite of the cold day there were over a hundred friends present, besides some relatives of the deceased, and there was among others the officials and many employees of the Goodrich line. Mr. H. W. Thorp, general manager, Capt. D. M. Cochran, superintendent, W. S. Willard, agent, W. E. Elliott, chief engineer, W. J. Wood, naval architect, Secretary Reynolds and Agent Herbst of Milwaukee, and agents from other ports, U. S. local inspectors Capt. C. A. Richardson and Stewart H. Moore, Captains G. H. Sager, P. T. Weimar, and many others. The unveiling address, which was brief, was delivered by W. H. Cochrane, assistant passenger agent, who in a few well chosen remarks eulogized the late captain and commented on the fine work of the sculptor's art, being subscribed for, cut and erected in so short a period after the captain's decease. Mr. Cochrane closed by calling on Mr. W. J. Wood, naval architect, who was the trustee and the moving spirit in the undertaking to unveil the monument. The monument was carefully inspected and the design and finish of the same met with the approval of all those present. The work is a capstan, mounted on an old fashioned ship capstan bed, which is reinforced by ship knees and the base is 6 feet long by 4 feet wide and stands over 8 feet high. It is cut from Barre, Vermont, granite, by Sherman & Glavin, Chicago, from a design by their architect, John D. Meyer, who was instructed and received the idea from the Goodrich people. The fact that the money has been subscribed from business associates only, and the monument erected in such a short

time after the captain's decease shows more than anything the high esteem in which he was held. Mr. Wood, the trustee, placed a small copper box in a niche in the monument under the capstan. The box contained a list of the names of 187 subscribers written in medieval type on sheep skin and a copy of a paper containing the captain's obituary, also the cards of a few of the most intimate friends. It would be interesting to know if that casket shall ever be seen by the light of day again, cemented into the heart of the stone as it is. This is a novel idea in monument dedication, but a common practice in laying a corner stone for a building structure. The idea was first suggested by President A. W. Goodrich.

DETROIT.

Special Correspondence to the Marine Record.

The tug J. F. Higgle, belonging to Hawley Bros., which burned at her dock Saturday night, will be a total loss. The tug was valued at \$2,500 and was partly insured. Jerry Donovan, a fireman who was sleeping in the engine room, barely escaped with his life. The cause of the blaze is unknown.

The following report for the period from October 16 to November 15, 1900, inclusive, of vessels passing through Detroit river was furnished by courtesy of Postmaster F. B. Dickerson, at Detroit, Michigan: Number of vessels passing through during the day, 1,212; during the night, 1,339; total 2,551; total for the season since April 26, 1900, 21,081.

Col. Lydecker, the United States Engineer whose headquarters are at Detroit, has reported adversely upon the proposition to deepen the American channel in the Detroit river so that vessels of deep draft from Lake Erie may touch at Trenton and Wyandotte. He says the improvement would benefit the local commerce only, and that the federal government would not be justified in making the necessary expenditure which would be extremely heavy. The colonel's report was transmitted to Congress by the War Department.

There is no longer any doubt about the identity of the woman cook who was drowned on the schooner Charles Foster. She was Mrs. Morse of St. Clair, Mich., wife of E. C. Morse, who is himself a vesselman. He has been working on the steamer Madagascar and returned to St. Clair last week, expecting to meet his wife there. He is nearly heartbroken. The couple were married at Buffalo on June 25 last, and Mr. Morse had on last Saturday rented a house at St. Clair, where his father is a customs officer. Mrs. Morse had one daughter, Bernie, about eight years of age, by a previous marriage.

The tug W. H. Brown was built at Wheeler's shipyard in the fall of 1897 for W. Harry Brown, a Pittsburg coal dealer. She was a duplicate of the Wilmot, built for use at New Orleans. The Brown was said to be the most powerful tug in American waters. She was intended for towing coal out into the Gulf of Mexico. There was delay in her construction in consequence of a strike and she started so late that she was overtaken by winter at Montreal. Brown was making the trip and died on board. The tug was thrown back on Wheeler's hands and he has now disposed of her to the United States government, who converted her into a gunboat. All her machinery was designed for use on salt water.

The yards of the Detroit Ship Building Co., at Orleans street, at the old Clark docks, and at Wyandotte, are filled with boats for repairs. There will be more passenger boats in Detroit for the winter than in many years. The shipbuilding company will have in its yards the States of Ohio, State of New York, City of Erie, City of Buffalo, City of Alpena, City of Mackinac, City of the Straits, City of Detroit, City of Cleveland, Pennsylvania, Tashmoo, Greyhound, City of Toledo, Arundel, Frank E. Kirby, Wyandotte, City of Marquette and the freighters Roumania, Tacoma, Cumberland, Massachusetts, Elfin Mere, Forest City, R. J. Hackett and Seattle. The labor and material to be expended on this immense fleet will produce a large sum before the boats clear next spring.

Norman McDonald, a watchman on the passenger steamer City of Erie, was drowned here Tuesday night. He slipped off a gangplank at the D. & C. dock. The body was recovered. McDonald was one of the most thrifty employes in the service of the C. & B. Line, and one of the engineers of the City of Erie, who knew McDonald, said only a few days ago that he had nearly \$1,000 in the bank. "I don't know where he kept his bank account," said Capt. McAlpin, "but I know he had \$500 saved up last season, and I believe it was in a Cleveland bank. I know that when we tied up here McDonald drew more than \$100 and if he had only \$21 in his possession last night I cannot account for it unless he deposited the rest. He was not a man who was given to drink or to spending his time away from the boat."

The twenty-fourth annual dinner to the heads of departments was given on Tuesday evening, by the D. & C. line, and it was Scotchman's night aboard the City of Detroit. Scotch tartan and pictures of the Scotch thistle were to be seen on all sides in compliment to the many sons of Scotia who fill important positions in the company's service. Chief Steward Thorn supplied a menu to make a gourmet smile, and the various dishes were prepared by master hands. Over sixty were present, the largest number that has ever attended one of these happy reunions, and the only guest outside of employes or ex-employees and newspaper men was John J. Barlum. The only speech of the evening was by Commodore Carter, delivered just after the guests had seated themselves at the dinner table. It was as follows: "Gentlemen

and co-laborers: It gives me great pleasure to meet you again around this festive board, at the close of another successful season of the D. & C., and I wish to thank you for the aid and co-operation you have extended me in the management of this company's great business. Upon calculation I find that the steamers under our immediate charge have traversed 210,000 miles during the past season without the loss of a single life or any appreciable loss of property handled by our different lines. Let us all be thankful together that we have been spared to again partake of the good things prepared by our chief steward."

Concerning the sinking of the schooner Foster the Detroit Free Press says: James Corrigan will probably remember the year 1900 as long as he lives. He began the navigation season with the foundering of the schooner R. Hallaran under similar circumstances, on Lake Superior, with the loss of several lives. She was a smaller boat than the Foster, and insured for part of her value. The capsizing and foundering of the schooner yacht Idler, off Cleveland, with Mr. Corrigan's wife and several daughters, was one of the noted disasters of the year in this country. About the same time he got an adverse verdict in a lawsuit against John D. Rockefeller for \$1,200,000 he claimed was due him on some mining property. Several of his vessels, other than the two mentioned, have gone ashore and been otherwise injured during the season. The demon of disaster has scarcely left him this year.

LETTERS AT DETROIT MARINE POST OFFICE.

December 12, 1900.

To get any of these letters, addressees or their authorized agents will apply at the general delivery window or write to the postmaster at Detroit, calling for "advertised" matter, giving the date of this list and paying one cent.

Advertised matter is previously held one week awaiting delivery. It is held two weeks before it goes to the Dead Letter Office at Washington, D. C.

Allen M. J., Str. Glidden	Monnett F. B., 2, Str. J. E. Owen
Andres Edw.	Martin Capt. J. J., Str. May
Barnes Chas. E.	Richards.
Benkie Otto	Monroe Jas., Str. Pontiac
Best Harry, Str. Thomson.	Meldrum Alex
Campbell Robt., 2, Str.	McKinnon John
Corsica	McIntyre
Cowie A., 2	McLeard Jack, Str. Carnegie
Coleman Jos.	McCabe F. J., Str. Fitzgerald
Conklib C. R., Str. Lentz	McNeil John
Coles Burt, Str. Maunaloa	McLarty A. J.
Conniff F. M., Str. Maytham	Neill D. C.
Donahue J. G., 2, Str. C. E.	O'Malley Jno., Str. May
Bolton	Richards
Donahue C. E., Str. C. E.	Prendergast V. F., Str.
Bolton	Spokane
Duncanson Jos., Str. City	Randall John, Str. J. E. Owen
Genoa	Robinson Wm., Str. Reynolds
Doner Hugh	Rolf Alton
Eby Frank, Str. Spokane	Reesor Robt., Str. LaSalle
Easter Wm.	Summitt Fred, Str. Corsica
Eaton Robt., Str. Cambria	Smith John, Str. Olive Branch
Frankfelter H. L., Str. Glidden	Saunders Annie P.
Gaunderson Chas.	Serette Capt. Paul
Goodwin H.	Tinney Capt. M., 4, Str. M. B.
Graham T. W., Str. Frontenac	Grover
Greening Geo.	Vallat Frank, Str. Clarion
Halsted F. A., Str. Black	Whitbeck Claude, Str. Corsica
Hutchison D. C., Str. Siemens	Williams Moses, Str. J. E. Owen
Instant Earnest	Welch Chas. W., Str. Glidden
Johnson Ralph	Wilson A. H., Str. Sparta
Keough Daniel, Str. Nebraska	Warren W. E., Str. Siemens
Kenney Geo., Str. Maunaloa	Wasworth F. J.
Lawler W. T.	
Leonard Henry H., 3, Str.	
Tampa	F. B. DICKERSON, P. M.

Considerable information as to the new cup defender's hull has been given out at the Herreshoffs' shops. The keel will not be laid for some weeks to come. The plan of the keel mold as shown by figures of dimensions indicates a shorter and deeper keel than on the Columbia, and for it an order of 95 tons of lead has been placed in New York. The Tobin bronze plates for the yacht's sides have been ordered in Ansonia, Conn., and the steel angles for the frame are being molded at Steelton, Pa. The work on the hull of the new cup defender must follow the stiffening and repairs upon the hull of the 70-footer Rainbow in the south shop. There is yet so much work to be finished on this big sloop that it will take about four weeks to put her in shape for launching. By that time the keel for the new defender will be ready on the floor. The running of the lead keel will come two days later or on about Thursday, Dec. 27. The working plans for the new craft are being printed. Another important decision recorded is the adoption of all steel spars with the exception of the bowsprit and spinnaker pole. The introduction of a steel topmast will be a feature, especially if that spar is to be of the telescoping variety.

The German government has been paying a subsidy of \$225,000 to mail steamers to South Africa, and is so well satisfied with the result that the subsidized lines will be extended and the amount increased to \$337,500 a year. A bill recently passed authorizes the Imperial Chancellor to entrust to a suitable German contractor the establishment and maintenance of a fortnightly mail steamer communication on the above terms for a period of fifteen years—all to be paid out of the imperial funds.

THE FRENCH SHIPBUILDING MOVEMENT.

(From Syren and Shipping.)

We have already alluded, on several occasions, to the above important subject—in fact, the Syren and Shipping was the first English journal to direct public attention to the trend of events in France relative to the encouragement of a French-built and French-owned mercantile marine. Briefly put, the position is as follows: The French nation are determined upon a mercantile marine, and equally determined to pay for it, recognizing the fact that, under the existing system of subsidies, the building of sailing craft in French yards has made considerable headway, but not so steamers. It does not require much commercial perspicacity to grasp the fact that the efficiency of a steamship is much greater than that of a vessel which depends on the wind for its source of propulsion, and this the French Legislature has duly recognized. The steamship tonnage at present built in French yards is an almost negligible quantity, the French owner generally preferring to come to Great Britain, though by so doing he loses the various bounties he would earn by having his steamers constructed on French soil. Practically this means that the navigational bounties on steamers are not sufficient inducement to warrant the French shipowner paying the extra charges of native builders as compared with those of British shipbuilders. This condition of things is, however, to be shortly remedied, for during the prosecution of inquiries which we have personally made in France we learn that the mercantile marine bill, which was brought forward in November 1899, and referred to a committee, will undoubtedly pass. The bill practically continues the subsidy scheme, adopted in 1893, with the all-important addition that French-built steamships will be subsidised to such an extent that the owner will no longer come to British yards for what steam-propelled craft he wants, it will pay him better to have them built at home. We have no desire to weary our readers with the details of the proposed subsidies which will shortly be legalized. It is sufficient for our purpose to point out that it will be possible for a steamer to earn if., 70c. per gross ton for each thousand miles sailed, while the same steamer will also earn during the process of building the equivalent of something like £3 10s. to £3 15s. per gross ton. Such being the case, it is obvious that the building of steamers in France will enjoy a big boom. On all sides we find this opinion held, and to such an extent that several big companies are in process of formation, the object of whose existence is to earn dividends out of French-owned steamships. For these concerns there can be no doubt that the requisite capital will be readily forthcoming—in fact, there will be a rush to subscribe it. But the next question which these French investors and would-be shipowners have to face is: "Where are we to build our ships, and so earn the bountiful subsidies of a more than paternal Government?" Such vessels must be built in France. Manifestly, the yards at present in operation cannot supply one tithe of the demand for steamships. But to use a slang, yet expressive term, the "spec" is such a sound one, there is so much "good money in it," that it follows, as a matter of course, new yards will be laid down. It may not at first blush seem graceful for the Syren and Shipping, a British publication, to emphasize so strongly the hopeful prospects which are in store for French shipbuilding. Nor would we have done so during the past few weeks, as we again do now, if we had not the remedy to propose. British shipowners are bound to loose the French custom they have hitherto enjoyed so far as building ships for French owners is concerned. But such an occasion as this is one which has over and over again confronted British enterprise, and the oblivious policy, under the circumstances, is to carry the war into the enemy's territory. If French shipowners in "esse" or "posse" must have steamships built on French soil, why should not English brains and English capital build them? Of course, some objections will be raised to the suggestion we have already put forward, and which we again advance. It will be urged that French sentiment is against such scheme; that there is so little love lost between the nations separated by the "silver streak" that difficulties of an objectionable, if not insuperable, character would be raised. But looked at seriously, this is quite a puerile argument. Inquiries which we have made into the matter on the spot convince us that our French brethren, or rivals, would welcome the influx of British capital which would give them cheaper ships, and more expeditiously built ships, then they can ever hope to get if compelled to be dependent on French shipbuilders, whose experience is necessarily so very greatly inferior to that of British ship constructors. In short, it is the old story, that

pocket always dominates sentiment, and we have it on the authority of those who can best assess French feeling—from Ministers of State downwards—that the British builders and capitalists who would assist the French merchants to possess a fleet of steamships as fast as they will want them, will be received with the widest of extended arms. From a patriotic point of view, we should be exceedingly sorry to see the opportunity missed. It is, we grant, deplorable, to a certain extent, that a State should determine upon a policy of having ships at any price. But this must be regarded as inevitable. As Lord Beacon remarked, "we conquer nature by obeying her," and there is not the slightest reason in the present case why the British shipbuilder—and along with him, shall we say, the British investor—should not, by bowing to the inevitable, keep the building of the French mercantile marine in their own hands, and, at the same time, earn the very substantial dividends which indubitably are to be earned by such investments. We might even go a step further, and hint at the possibilities of the situation now presented from the British shipowning point of view. But our shipowners are so astute that they hardly require any suggestion of ours as to the commercial possibilities of the situation which has been created. Another factor which has been put forward as likely to deter British builders from building French tonnage in France instead of in England, as heretofore, is that there may be some difficulty in the way of their receiving security of tenure in respect of their ventures. But against this, we are assured that the French nation is determined upon a mercantile marine, and is willing, as we have stated above, to pay the price. Certainly the history of the State aid of French sailing-ship building and owning does not point to any likelihood to vacillation or change of front. Our neighbors want steamships. These vessels must be built in France, and, if British builders do not take advantage of the situation and construct them—well, we are assured, somebody else will.

CLOSING OF NAVIGATION.

DATES OF CLOSING OF NAVIGATION AT SAULT STE. MARIE, MICH., AND DULUTH, MINN.

Year.	Sault Ste. Marie, Mich.	Duluth, Minn.	Year.	Sault Ste. Marie, Mich.	Duluth, Minn.
1855.....	Nov. 23	Dec. 16	1878.....	Dec. 3	*
1856.....	Nov. 28	Nov. 22	1879.....	Dec. 3	Dec. 12
1857.....	Nov. 30	Nov. 20	1880.....	Nov. 15	Dec. 17
1858.....	Nov. 20	Nov. 20	1881.....	Dec. 5	Nov. 26
1859.....	Nov. 28	Nov. 9	1882.....	Dec. 3	Dec. 30
1860.....	Nov. 26	Dec. 4	1883.....	Dec. 11	Dec. 24
1861.....	Nov. 14	Dec. 12	1884.....	Dec. 10	Dec. 25
1862.....	Nov. 17	Dec. 16	1885.....	Dec. 2	Nov. 29
1863.....	Nov. 24	Dec. 7	1886.....	Dec. 4	Dec. 14
1864.....	Dec. 4	Dec. 1	1887.....	Dec. 2	Dec. 28
1865.....	Dec. 3	Dec. 5	1888.....	Dec. 4	Dec. 31
1866.....	Dec. 3	Dec. 10	1889.....	Dec. 4	Dec. 4
1867.....	Dec. 3	Dec. 1	1890.....	Dec. 3	Dec. 8
1868.....	Dec. 3	Nov. 21	1891.....	Dec. 8	Dec. 7
1869.....	Nov. 29	Nov. 12	1892.....	Dec. 6	Dec. 6
1870.....	Dec. 1	Nov. 21	1893.....	Dec. 6	Dec. 8
1871.....	Nov. 29	Dec. 6	1894.....	Dec. 6	Dec. 5
1872.....	Nov. 26	Nov. 24	1895.....	Dec. 9	Dec. 9
1873.....	Nov. 28	Dec. 30	1896.....	Dec. 11	Dec. 11
1874.....	Dec. 2	Dec. 11	1897.....	Dec. 13	Dec. 13
1875.....	Dec. 2	Dec. 10	1898.....	Dec. 14	Dec. 15
1876.....	Nov. 26	Dec. 19	1899.....	Dec. 19	Dec. 17
1877.....	Nov. 30	Dec. 17	Average	Dec. 1	Dec. 8

*January 2, 1879.

NOTICE TO MARINERS.

UNITED STATES OF AMERICA—NORTHERN LAKES AND RIVERS—MICHIGAN.

TREASURY DEPARTMENT,
OFFICE OF THE LIGHT-HOUSE BOARD,
WASHINGTON, D. C., December 10, 1900.

CHEBOYGAN RIVER RANGE REAR LIGHT STATION.

Notice is hereby given that, on or about December 10, 1900, the height of this light above lake level will be increased to 75 feet, and the light will be established in the new, white, square, pyramidal, skeleton, iron tower, with daymark of horizontal slats, recently erected on the existing range line at a point 1,112 feet ($\frac{1}{8}$ mile) in rear of the front light.

The height of the new tower, from base to the focal plane of the light, is 72 feet.

By order of the Light House Board:

FRANCIS J. HIGGINSON,
Rear Admiral, U. S. Navy, Chairman.

SEA AS A COMPETITOR OF THE SIBERIAN RAILROAD.

There seems to be a decided division of opinion in the Russian press as to the part which the Trans-Siberian railway is to play in the carriage of freight between Europe and Asia, observes the Scientific American. The optimistic press believes that the scheme will attract to itself a large portion of the freight which is now carried by sea between European and Asiatic ports. On the other hand, we find the Novosti declaring that all hopes of any considerable revenue accruing to the road from this source are based upon a misunderstanding of the situation. It contends that the Siberian railroad can never compete successfully, either in point of time or cost, with ocean-going steamers, for the reason that it takes forty-two days to carry freight from Irkutsk to Moscow by rail, and that the steamers are making the same rate of speed at the present day. The question of time, however, is not so serious as is that of the cost of transportation, and the Novosti claims in this respect also the railroad will find itself to be at a serious disadvantage. Thus it is assumed that if the carriage of freight between Hamburg and Port Arthur, a distance of 6,000 miles, costs only about one two-hundredth part of a cent per pood of thirty-six pounds per verst of two-thirds of a mile, then the freight per pood between these two ports will amount to forty-five cents. As against this rate by rail it seems that the rate by sea from Hamburg to Vladivostock is only eighteen cents per pood of thirty-six pounds. It is claimed that although this difference between the rail and sea rates is so great, the steamers are carrying freight at a fair profit, while the Siberian road is carrying freight at less than cost, even when making the higher charge of forty-five cents as mentioned above. From this comparison it is concluded that for the present, at least, the railroad cannot figure as a competitor with the steamers which are already engaged in the trade. The field for the activity of the railroad lies in the direction of developing the more or less local traffic, and in promoting the settlement of the country and upbuilding its industries.

EASTERN FREIGHT REPORT.

Messrs. Funch, Edye & Co., New York, report the condition of the eastern freight market as follows:

The list of charters reported for grain from range of northern ports is generally understood to cover sales previously effected and only now supplied with freight room. The rates secured for these fixtures being not now obtainable for later periods, owners of more distant tonnage have latterly been withdrawing their boats from the market, which accounts for the small number of fixtures; the demand for option of the Baltic ports, especially of ports in Denmark, has likewise acted, to some extent, as a handicap on grain charters. A few boats have been placed from Wilmington and Charleston, and Savannah appears likewise preparing to enter the market for a few boats at between 37s 6d and 40s. A number of charters are reported from the gulf, in which owners of prompt tonnage have managed to secure very full rates for Denmark and the Mediterranean; for January and February loading 18s and 17s respectively have been accepted. We can report no engagements for timber, as prompt vessels could do comparatively better for other cargo, and the equity for larger shipment is not active, charterers, too, being in part covered by time boats.

The want of suitable tonnage for long voyages is again becoming more apparent and rates are once more hardening. More particularly is this the case in the Australian trade, in which there is a good demand for handy tonnage and quite an advance on the late rates established, while case oil rates to the far east are likewise slowly advancing and the prospects for a further improvement favorable.

Timber freights are rather easier, while lumber rates to South America about hold their own. Naval stores show very little animation, and rates are at present rather favoring shippers.

A GOVERNMENT school ship on the lakes will soon be a reality if the lake cities ask for it. Their size and importance clearly entitle them to it and the favor of the Secretary of the Navy, the Secretary of State and Senator Hanna has already been solicited and obtained. The government can easily be induced to provide the vessel, maintain it and furnish the officers and men. All that is needed is to demonstrate to the government that the lake cities want it and will use it. Very little effort ought to suffice to arouse their interest in the matter—not much more than is needed to direct their attention to it.

WRECK AND CASUALTY REPORT FROM OCT. 16 TO NOV. 15, 1900, INCLUSIVE.

COMPILED BY THE WEATHER BUREAU.

In comparison with the record of 1898 and 1899, for the same period, there were fewer casualties during this season than in 1898 and more than in 1899. In 1898, 53 vessels were more or less damaged through stormy weather or fog, the total amount of damage aggregating \$299,934, and in 1899, 14 vessels were damaged to the amount of \$5,000, while this season the record was 19 vessels, and the total amount was \$44,400. The number of lives lost in 1898 was 33; in 1899, 3; this season, none.

October 23.—Steamer Colonial, stranded near light-house, Little Rapids, St. Marys River, during dense fog; estimated damage to vessel, \$5,000; cargo, \$500; released.

October 31.—Steamer Argo, with barges Dobbins and Nelson Bloom in tow, stranded near Detour during dense fog; estimated damage to steamer, \$3,500; to the Dobbins, \$1,500; Nelson Bloom, \$500; total \$5,500; released.

November 1.—Schooner Tailor reported stranded on Long Point, Lake Erie, during heavy southwest gale; probably released.

Schooner Reuben Doud was caught in heavy southwest gale and lost main and mizzen masts and became water-logged off Port Stanley, Lake Erie; estimated damage to vessel, \$600.

November 2.—Steamer Harlem stranded on Duck Islands during dense fog; estimated damage to vessel, \$2,500; released.

November 2.—Steamer F. & P. M., No. 5, stranded at Sailors' Encampment, St. Mary's River, during dense fog; estimated damage to vessel, \$2,000; cargo, \$500; total \$2,500; released.

November 5.—Schooner Rosa Sonsmith parted towline while entering Ashtabula Harbor and stranded on the rocks about 300 feet from the pier during heavy sea and northwest gale; estimated value of vessel, \$15,000; cargo, \$4,000; total, \$19,000; total loss; crew rescued.

November 5.—Steamer Kaliyuga stranded at the Limekiln Crossing on account of low water from high northwest winds; estimated damage to vessel, \$1,000; released.

November 5.—Schooner Fred L. Wells stranded at Four Mile Point, Lake Ontario, during heavy northerly gale; crew rescued by life-savers; estimated value of vessel, \$1,200; total loss.

November 8.—Schooner Stafford stranded at Good Harbor, Lake Michigan, during heavy northwest gale and reported a total loss; crew rescued; estimated value of vessel, \$1,500; cargo of potatoes, \$1,500; total, \$3,000.

November 8.—Steamer Nebraska stranded near Presque Isle light, Lake Huron, during heavy northeast gale; assistance was rendered by use of the Weather Bureau telephone lines to Alpena, and, after jettisoning about 100 tons of cargo, was released; estimated damage to vessel, \$2,000; cargo, \$500; total, \$2,500.

November 8.—Schooner Wing was beached 5 miles south of St. Joseph during heavy northwest gale and became a total loss; crew rescued; estimated value of vessel, \$1,000.

November 9.—Schooner Jupiter stranded and became water-logged at the mouth of Sandusky harbor during brisk northwest wind; estimated damage to vessel, \$100; released.

November 10.—Schooner A. C. Keating, in tow of the steamer New York, broke loose from towing steamer during heavy northeast gale, and finally stranded about 25 miles north of Whitefish Point, and reported a total loss; crew rescued; estimated value of vessel, \$2,500.

November 10.—Schooner Boaz stranded in North Bay, Green Bay, during northeast gale, and reported a total loss; crew rescued; estimated value of vessel and cargo, \$1,500; total loss.

November 10.—Schooner Julia, (small), foundered off Little Sturgeon Bay during northwest gale and became a total loss; crew rescued; estimated value of vessel, \$500.

November 10.—Schooner William Finch stranded in Egg Harbor, Green Bay, during heavy northwest gale, and became a total loss; crew rescued; estimated value of vessel, \$5,000.

November 11.—Steamer Andaste stranded at the middle end, Lake St. Clair, during dense fog; damages nominal; released.

November 14.—Barges Belle and Dorchester stranded during heavy northerly gale and snowstorm, on Amherst Island, Lake Ontario; damages nominal; released.

On November 9, the barges Barr, Commodore, Keating and L. M. Mason broke loose from their towing steamers on

Lake Superior during the northerly gale, and were afterwards picked up, except the Keating, which stranded and became a total loss. Considerable damage to other vessels on account of the weather on this date was reported.

TRAFFIC THROUGH THE ST. MARY'S FALLS CANAL.

STATISTICAL REPORT OF LAKE COMMERCE THROUGH CANALS AT SAULT STE. MARIE, MICHIGAN AND ONTARIO, FOR THE MONTH OF NOVEMBER, 1900.

EAST BOUND			
Articles.	U. S. Canal.	Canadian Canal.	Total.
Copper.....net tons	17,759	663	18,422
Grain.....bushels	4,173,688	172,824	4,346,512
Building stone.....net tons	9,835	160	9,995
Flour.....barrels	917,370	56,775	974,145
Iron ore.....net tons	981,164	74,301	1,055,465
Iron, pig.....net tons	2,869	.....	2,869
Lumber.....M. ft. B. M.	129,177	1,727	130,904
Silver ore.....net tons	.....	.....	.....
Wheat.....bushels	3,748,025	1,039,780	4,787,805
General mdse.....net tons	9,593	11,551	21,144
Passengers.....number	524	974	1,318

WEST BOUND.			
Coal, hard.....net tons	59,754	.....	59,754
Coal, soft.....net tons	313,117	32,072	345,189
Flour.....barrels	.....	135	135
Grain.....bushels	9,300	8,350	17,650
Manufactured iron.....net tons	12,783	518	13,301
Salt.....barrels	50,612	345	50,957
General mdse.....net tons	68,521	10,155	78,676
Passengers.....number	293	808	1,101

Freight—			
East bound.....net tons	1,543,282	131,621	1,674,903
West bound.....net tons	461,917	42,952	504,869
Total freight.....net tons	2,005,199	174,573	2,179,772
Vessel passages—			
Number.....	1,433	279	1,712
Reg'd tonnage.....net tons	1,629,716	152,299	1,782,015

Compiled at St. Mary's Falls canal, Michigan, under direction of Lieut.-Col. G. J. Lydecker, Corps of Engineers, U. S. A. Joseph Ripley, Asst. Engr. and Genl. Supt.

VISIBLE SUPPLY OF GRAIN.

As compiled for THE MARINE RECORD, by George F. Stone, Secretary Chicago Board of Trade.

CITIES WHERE STORED.	WHEAT. Bushels.	CORN. Bushels.	OATS. Bushels.	RYE. Bushels.	BARLEY. Bushels.
Buffalo.....	4,286,000	682,000	262,000	45,000	1,782,000
"afloat.....	1,165,000	.....	.....	.....	.....
Chicago.....	11,193,000	1,473,000	3,224,000	605,000	151,000
Detroit.....	505,000	101,000	36,000	53,000	75,000
Duluth.....	5,246,000	157,000	619,000	242,000	126,000
Fort William, Ont.	1,025,000	.....	.....	.....	.....
Milwaukee.....	822,000	100,000	126,000	8,000	35,000
Port Arthur, Ont.	115,000	.....	.....	.....	.....
Toledo.....	926,000	995,000	1,006,000	19,000	.....
Toronto.....	72,000	.....	2,000	.....	189,000
On Canals.....	.....	27,000	51,000	.....	.....
On Lakes.....	1,989,000	1,871,000	386,000	30,000	291,000
On Miss. River.....	.....	.....	.....	.....	.....
Grand Total.....	61,494,000	8,762,000	10,875,000	1,284,000	3,273,000
Corresponding Date, 1899.....	56,292,000	11,246,000	6,077,000	1,344,000	3,093,000
Increase.....	.....	.....	.....	.....	.....
Decrease.....	685,000	680,000	444,000	41,000	145,000

While the stock of grain at lake ports only is here given, the total shows the figures for the entire country except the Pacific Slope.

LIFE SAVING SERVICE.

In the annual reports of the Treasury Department, that of the United States Life-Saving Service shows that at the close of the fiscal year, June 30, 1899, there were 265 stations embraced in the service. Of these 193 were situated on the Atlantic and Gulf coasts, 56 on the coasts of the Great Lakes, 15 on the Pacific coast, and one at the falls of the Ohio. The number of disasters to documented vessels was 428. There were on board 3,903 persons, of whom only 56 were lost. The total value of property imperiled was \$8,104,640. Of this \$6,261,900 was saved, and \$1,842,740 lost. Only 72 vessels were totally lost.

In addition to the foregoing there were 294 casualties to undocumented craft—sail boats, row boats, etc.—carrying 671 persons, seven of whom perished. There were 97 rescues of persons who had fallen into the water, gone adrift on floating ice, or suffered similar accidents. Sumner I. Kimball is general superintendent of this admirable service, and many officers of the Revenue Cutter Service are employed in.

SHIPPING AND MARINE JUDICIAL DECISIONS.

(COLLABORATED SPECIALLY FOR THE MARINE RECORD.)

Voyage of Foreign Vessel from Foreign Port to United States—Stipulations in Bill of Lading—Law of Ship's Flag.—A stipulation that the law of the ship's flag shall govern, in a bill of lading for goods in a foreign vessel on a voyage from a foreign port to the United States, is nullified and overridden by the Harter act of February 13, 1893, chap. 105, § 1 (27 Stat. at L. 445), which prohibits contracts against liability for negligence in loading and stowing the cargo. James Knott, Petitioner, vs. Botany Worsted Mills et al., 21 Sup. Ct. Rep. (U. S.) 30.

Delay in Unloading Caused by Public Enemy.—A detention of a vessel for unloading, which is caused, not by any act of the shipowners or of the charterers, but wholly by the actual firing of guns from an enemy's ships of war upon the forts in the harbor, directly affecting the vessel and making the discharge of the cargo dangerous and impossible, cannot be considered as caused by "default" of the charterers within the meaning of a charter party stipulating for demurrage in case of their default. George W. Crossman et al. vs. William Burrill et al., 21 Sup. Ct. Rep. 38.

Insurance—Marine Policy—Fraudulent Destruction of Vessel—Conspiracy—Evidence—Bill of Lading.—Where A conspires with the master of a vessel in which the goods are shipped, to wreck the same, and the vessel is sunk by the master in pursuance thereof, and but a small quantity of the goods which were included in the bill of lading were in fact shipped in such vessel, and the cargo was insured by the consignee, who did not participate in the fraud, and the bill of lading is admitted in evidence on behalf of the consignee, in an action by the consignee on such policy the insurer may show the falsity thereof. Voisin vs. Commercial Mut. Ins. Co., 66 N. Y. Supp. 638.

Harter Act—Negligence in Loading or Stowage of Cargo.—Damage to wool stowed on the forward side of a temporary wooden bulkhead, by drainage from sugar stowed aft of the bulkhead, when it results from the fact that for a short time the vessel was trimmed by the head after discharging a part of the cargo, until she was again trimmed by the stern at another port, arises from negligence in loading or stowage of the cargo, which makes the vessel liable under the Harter act of February 13, 1893, Chap. 105, § 1, (27 Stat. ar. L. 445), notwithstanding any stipulations to the contrary in the bills of lading; and it is not a damage from fault or error in the navigation or management of the ship. James Knott, Petitioner, vs. Botany Worsted Mills et al., 21 Sup. Ct. Rep. (U. S.) 30.

Marine Insurance.—The master of a vessel, after having issued false bills of lading in excess of the cargo, and after the consignee had effected insurance thereon, destroyed his vessel at sea, in pursuance of a conspiracy for such purpose, to which the consignee was not a party. In an action by the consignee on the policy, the jury found that the consignor was not guilty of fraud, but such finding was not supported by the evidence. The consignee recovered a judgment for the full amount of the policy, though the consignor had an interest in the cargo, the amount of which was not shown; nor was it shown that the judgment was not greater than the consignee's interest in the property destroyed. Held, that a new trial should be granted, since the consignee was only entitled to recover the amount of his loss. Voisin vs. Commercial Mut. Ins. Co., 66 N. Y. Supp. 638.

Sufficiency of Evidence.—A master of a vessel in a foreign port made a contract with a brother-in-law of the consignee of a cargo to be shipped in such vessel that the master should sink the vessel at sea, which he afterwards attempted to do, and much of the cargo was destroyed. The master issued bills of lading for a cargo twice as large as that shipped. The vessel was unseaworthy, and the consignor, who had an interest in the goods, could have shipped them in a sound vessel belonging to a regular line; and after the loss he refused to allow the insurance company which had insured the goods to examine his books, but he testified that he had acted in good faith. In an action by the consignee, who had acted in good faith, on a marine policy covering such goods, the jury found that the consignor was not guilty of fraud. Held, that such finding was not sustained by the evidence. Voisin vs. Commercial Mut. Ins. Co., 66 N. Y. Supp. 638.

Demurrage—Liability of Charterers—Effect of Cesser Clause.—The cesser clause of a charter party saying: "Charterers' responsibility to cease when vessel is loaded and bills of lading are signed," does not relieve the charterers from liability for demurrage under provisions of the charter requiring them to pay demurrage for any delay in delivery by their fault or that of their agent, and declaring that the vessel is to have an absolute lien upon the cargo for all freight, dead freight, and demurrage, where the bills of lading, which do not mention demurrage or refer to any other provisions of the charter than those concerning freight and average, have been assigned, and the delay in unloading is made by the assignees of the bills of lading, who thereby became consignees of the cargo, since the rights of the shipowners against those consignees depend altogether upon the contract created by the bills of lading, except so far as that contract refers to the charter party. George W. Crossman et al. vs. William Burrill et al., 21 Sup. Ct. Rep. (U. S.) 38.



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CLEVELAND, O., DECEMBER 13, 1900.

A RAILROAD MAN'S VIEWS.*

Of the transportation interests let me give you a single illustration to indicate their magnitude. I have a purpose tonight in this, and by and by I am going to talk against your views. The Pennsylvania Railroad is one of my illustrations—the largest. It represents more capital than the value at normal prices of the entire shipping of the British empire, mistress of the seas. One illustration of the service—an illustration I have often used before—of these carriers. The wheat on a Dakota farm is raised, carried many miles to the railroad station, hauled 500 miles to the mills at Minneapolis, ground at the mill, sacked and loaded in the car and then carried 1,500 miles or more to New York or Boston. Yet all those operations combined cost less than to bake that flour into bread and carry it from a New York bakery to your homes. The Falls of St. Anthony are closer to the workman's door today by virtue of the great transportation systems than was the creaking old mill to my home on the farm when I was a boy.

A single illustration to give you a mental picture of the indirect service those transportation interests render in furnishing a great consumer for the varied commodities of industrial life, and I speak of it because it is the smallest thing in railroad consumption today. The steel car has lately entered into railroad service. The industry of manufacturing steel cars is scarcely three years old. Only a few of the companies have had the courage to use those cars. There is doubt; there is hesitation about them. Yet that single company manufacturing steel cars, only three years old, uses more plate steel for the manufacture of cars, small as is the demand yet, than all the shipbuilding industries of the United States, river, coast and lake combined. I cite these illustrations to give you a mental picture of the vastness of the interests which are covered by the toast, of the character of the service which they render, direct and indirect.

The great city of New York is proposing, if I read the papers aright, to have another transportation interest set alongside of these that I have spoken of, and which you call a deep waterway—a deep waterway canal. Somehow or other these interests that have served you so long and so well, in the bright future that you are weaving for New York, do not seem to satisfy your grasping desire for more trade. You have set about it with your imperial wealth. You say New York's commerce must be protected; her commercial supremacy is threatened, and we will get another transportation interest, notwithstanding the magnificent ones we have.

May I, a provincial from another state, make a suggestion?

*Extracts from an address before the annual banquet of the New York Chamber of Commerce, by John K. Cowen, president of the Baltimore & Ohio Railroad.

What do you want another transportation interest to the Atlantic seaboard for—built not by your own money, where you stack it up on the game that is a fair field and a free fight—but built by money that your imperial city of New York obtains by taxation, and thrown side by side with the vast transportation interests of which I have tried to give you a faint mental picture?

You say your commerce is slipping away. Let us pause for one minute and reason about it. What commerce do you expect to carry to this city that is not carried already? Not the product of the mine, the factory or the forest; not the provision business, so-called, meats and dairy products to any great extent, I take it, is to be carried over this new waterway. What is it? When you come to sift it, it is grain and the meal products of grain. Where do you expect to divert it from? Not from Galveston or New Orleans, I take it. Their proximity to the fields that produce, and the necessity for a return cargo with their empty cars and their other advantages, the railroads which now carry that traffic alongside of a natural waterway, will not lose their trade to an artificial waterway in the north. You do not expect, therefore, to divert it from that section. You do expect, however, to take it from those lines that I have described—the five ports of Norfolk, Newport News, Baltimore, Philadelphia and Boston—and what do you propose to take away? Think of it a moment. Think of your indirect assault on those huge transportation interests. What do we carry to those ports that you would thus take away? Take the year 1900: 163,000,000 bushels of grain, 112,000,000 of which was corn.

Now, I will surprise you by saying that in the year 1900 there was nearly as much wheat went through the Baltimore & Ohio elevators from the bay counties of Maryland and the bay counties of Virginia as came from all the balance of the United States. So limited was our wheat that went through the elevators at Baltimore that we held on to our corn, and 112,000,000 of the 163,000,000 bushels was corn. You carried 76,000,000 bushels and you carried 40 per cent of the flour; 40 per cent, I mean, of what the other five ports I have mentioned carried. Now, what part of that 163,000,000 bushels do you expect to divert? I tell you that the corn trade is linked to the railway lines through Ohio, Indiana, Illinois, Missouri, Kansas and Nebraska, and the relations are such that the railroad map would be changed, if necessary, to preserve the corn trade to these, your rival ports. But it is not necessary; the natural tendency is that way, and our railroad gave up her wheat traffic while we held like a vise to the corn. You carry half of the wheat already for those five ports; you carry 50 per cent. of it already. How much more do you expect to get by your new waterway? Is it 50,000,000 bushels? What does 50,000,000 bushels leave in the city of New York, assuming that you handle it as economically as we do, though you do not. It would leave but three or four hundred thousand dollars to the laborers to transfer that from car to ship, which is all that stands in the way except the profit to the sellers, and that profit to the sellers comes now to New York just as well as if it went through New York harbor instead of going through Baltimore harbor, as your sellers are here as well as they are in Baltimore. The limited quantity that remains in Baltimore is all that stands there for the city of Baltimore outside of the profit which the railroad itself makes upon it.

I ask you to revise your opinions, to look them over again and see whether this great imperial city of New York wishes even indirectly, to make an attack upon these transportation interests which I have described. Are you not a thousand times as much interested in the prosperity of these existing transportation interests to the seaboard as you possibly could be in the slight diversion which you could make in a railroad struggle for a little more wheat and grain to this port? Do not the citizens of Baltimore trade at your retail stores, buy from your manufacturers, purchase from your wholesale stores, stop at your hotels, attend your theaters and go to your places of amusement? Do they not contribute more than the slight amount that would be contributed to you by a little diversion of the grain and meal trade to this city? But more. I will astonish you, possibly, by giving you a mental picture again.

The agricultural products, including the meat and dairy products that are transported from the United States in tons, do not equal one-third of the tonnage of the coal that Great Britain sells abroad, and the coal tonnage is just beginning. The idea of exporting raw coal abroad is based upon the notion of a one-way traffic, coal alone, and nothing back. Probably my friend, the postmaster general, will find that it

is not necessary to have a return cargo; forty cents a ton for bringing ore from Spain or Cuba; and when that time comes we will probably bring a little of that in as a back load, but it is small—it is a one-way traffic. But make these big transportation interests recast their map to protect themselves and the tonnage. If we only carry one-third of the coal tonnage abroad that England sells, only one-third, and we carried as much as all the agricultural products that are now shipped from all ports of the United States, would you not possibly invite a back cargo that would injure your import trade? Think of it a moment. I may be all wrong. I grant you that there is much against me; all your papers are against me. Nevertheless, I thought at this meeting with this body and with this new discussion it might not be amiss for you to take thought or that suggestion home.

Now, do not misunderstand me. I believe in the future of New York. I am a believer in all that has been said tonight about the expansion of this country. I know the indirect consequences of war are always greater than its direct consequences. Twenty years ago in the United States Senate it was said, "What do we care for trade abroad?" and tonight the whole pitch and trend of these magnificent addresses is for trade abroad. I believe that we are bound to become the greatest of all manufacturing nations, and I believe that this port of New York is going to get the great mass of those manufactured goods to send abroad, to distribute in Europe and the Orient. I believe that your shipping will increase from year to year.

Your president asked me to say something about increasing the commerce of New York. You are increasing the commerce of New York. Your bankers, the greatest in the world, write their names for one hundred million on a reorganization agreement, and the corpse of a dead credit rises to life. You lend your money abroad, you organize your aggressive combinations, which are pushing the foreign trade; New York organizes them, New York money floats them, New York gathers together the little rills from all the country over, and New York has made the big aggressive combinations which are doing more for the spread of foreign trade, although they are denounced by the politicians; doing more for the spread of foreign trade than any other single agency of modern times. New York is doing this; New York is going to get the great mass of this trade. She has more than half of it already; she will continue to receive her great land share; she ought to have it. I rejoice that they should have it, but I make the suggestion that it is in the wide diffusion of wealth that New York receives her greatest benefit. It is probably necessary, when you are called upon in this matter of which I have spoken, to do as you do in criminal law. The criminal law is a rude engine of reform; an engine of reform nevertheless; but before you set it agoing you are to be absolutely certain, beyond doubt, that it strikes the right place, else you won't set it going. Is not that a wise idea? It may be necessary; there may be reasons, political, religious, military or what not, that does it; but is it not wise to follow the wisdom of the criminal law, that before you do it be certain that it is right? Let there be no reasonable doubt. Certain in this case that you will divert the traffic; certain that it is worth diverting; certain that the damage to the transportation interests to the seaboard already existing had better be suffered rather than to divert it.

In an article in *Le Yacht* Mr. Paul Amrel shows that in every country the system of training under masts and sails has been retained, and he points to the Borda, the Bourgainville, the Iphigenie, the Melpomene, and the Bretagne as typical training ships employed in the French navy. He draws attention to the fact that the Russians have preserved masts in a number of their cruisers, not as a means of propulsion, but because they consider the exercises which are imposed to be essential for the moral and physical education of the ships' crews. Quite recently the North German Lloyd announced that it was about to send out its young officers and men in a large sailing ship, in which they were to be trained in the delicate and complicated maneuvers of the old navigation. M. Amrel believes that this kind of instruction has the best effect in developing the moral value and character of men, and says that all who remember the hard trials endured under sail, and the coolness, judgment and experience required to make good the smallest mishap, especially in bad weather, will agree that only in such a school can a nautical education be completed. While he thinks it well to send young seamen afloat in sailing ships, he does not, however, regard this training essential for present needs.

SHIPPING OF THE WORLD.

Under the above heading, in an article published in the MARINE RECORD of date of Dec. 6th, it says, "The merchant marine of the world, according to Lloyd's Register, is represented by 28,422 vessels, having a tonnage of 29,053,738. Of this aggregate, Great Britain has 10,838 vessels, and a tonnage of 14,261,254. Next to the British Empire ranks the United States, with 3,135 vessels and a total tonnage of 2,750,271." The Scientific American in its issue of May 5th, 1900, stated that the tonnage of Great Britain (steam 6,759,000, sail 2,426,000) was 9,421,000. And that of the United States was, steam 673,000, and sail, 1,292,000, or a total of 1,956,000, (leaving off the few odd hundreds) American tonnage on the high seas.

Supposing those statements to be correct, and, certainly, they are considered to be standard authorities, it shows that the tonnage of Great Britain has, during the past eight months, or possibly a year, increased over 840,000 tons. And during the same time the new ships built in the United States show a net increased tonnage of 786,000. This estimate, of course, covers the new steam and sail of both countries. And that the increase of tonnage of Great Britain during that period was but 54,000 greater than it was in the United States.

Comparing that with the fact, that for the last forty years, up to quite recently, the out-put of new tonnage in Great Britain, for deep sea commerce, has been on the average per annum, three or four times of that in this country. That being the case, considering the great proportionate increase of new tonnage in this country for the year past, how long will it be before we outstrip Great Britain in the construction of great merchant marine ships to traverse the world's great highways? and that, too, without the aid of any subsidy, from the National Government, at the expense of the American people, who will not be benefited thereby directly, at least.

SENATE COMMITTEE ON COMMERCE.

The report of the Senate Committee on Commerce, recently made public, though submitted to the Senate of February last, shows that the value of American exports and imports, and the percentage carried in American and foreign ships from 1869 to 1899, to have been as follows,

Year.	Total.	American.	Foreign.	Per cent.
1869	\$ 876,448,784	\$289,956,772	\$ 586,492,784	33.1
1879	1,183,384,924	272,015,692	911,269,232	23.
1889	1,420,868,649	203,865,541	1,217,063,541	14.3
1899	1,806,876,073	160,644,006	646,232,067	8.1

which shows that the percentage of American commerce carried on American ships was not one-fourth, in 1899, that it was in 1869, yet there was a great increase of American tonnage, if not possibly in proportion to the increase of our commerce, yet they could have carried in 1899, more than twice what they could have carried 40 years ago, for that though the gross foreign commerce had considerably more than doubled, so had the tonnage of American bottoms. And it is also true that while there have been, especially of late, a wonderful increase of exports, there have been nearly a proportional decrease of imports, showing a very handsome balance of trade in our favor. In fact that balance, for the last three years, was greater than it had been for the previous 100 years.

And yet when we take into consideration the late rapid increase of American tonnage on the high seas that are in the foreign trade, being so much more so than in any other period since the war of 1861-5, that drove the American merchant marine from the face of the seas, and left the American ship owners bankrupt, and so discouraged that they who did have money turned their attention to other branches of trade and business, that for the time being seemed safer, and in fact more lucrative. And it was many years before much attention was paid to the project of building up a new merchant marine, and during that period there was a great revolution in ship structure. England had entered largely in the construction of large steel ships, many having a high rate of speed, new ship plants were put down in many places around the Island. The Government paid large bonuses for carrying the mails, while we were doing little or nothing to encourage shipbuilding in this country. Our people were forced to go it alone. But they went ahead doing as best they could, until Congress began to see the necessity of having a navy, and provided that it should be built in this country, of American material, and paid liberally therefor, whereby our people put in large plants at great cost, and built the best kind of war ships. This so encouraged our shipbuilders that now we have nearly as great a tonnage as that we had before the war, and being at the

same time far more expensive, and having a better class of ships, able to do a far greater amount of business than could the old, averaging much larger, and much faster going, being now mostly built of steel and iron, thus displacing the old wooden ships, and a very much larger percentage is navigated by steam, especially those made for short voyages.

Unless there is a mistake in the figures given us by the Scientific American in May, and Lloyd's Register in December 1900, we now have ample tonnage to carry all our export and import commerce with foreign countries. And if they did carry less than 9 per cent. in 1899, they must have been in a entirely foreign trade, where it was more lucrative than it would have been to have entered into competition with foreign ships for our trade direct with England and Western Europe, for these reports shows that the increase of American tonnage during the current year was more than two-fifths of what we had last year, while that of Great Britain was less than one-eleventh, and it further shows that the actual tonnage turned out by the British yards was but 54,000 tons more than was turned out by the American shipbuilders, during the same time. These being the facts, we would ask, how long will it be necessary to keep up this ratio, before the American deep sea tonnage will be equal to that of Great Britain. When we take into consideration the fact that the raw material, as a general thing, is much cheaper here than it was in the past, and in fact is now much cheaper, especially coal, than it is in England or elsewhere in Europe, thus with the great improvements in labor-saving machinery, more than counter-balances the higher grade of wages paid in this country, we can build ships here for less money than they can be built elsewhere.

Increased cost of shipbuilding in Great Britain, we are informed through H. E. Moss & Co., of Liverpool, in a report recently made by them, that appeared in the MARINE RECORD of Nov. 29th, under the heading of "British Shipping," which says, "The cost of shipbuilding has continued to advance by leaps and bounds, until now we may say it is at least 49 per cent. above the price four years ago. Within the last twelve months the advance has been quite 10 per cent. In that connection we may state that the president of the Great Northern R. R., Mr. Hill, in an address delivered by him in Chicago, said that he received bids from shipbuilders on the Clyde, and from the most reliable builders in this country, and for a single ship our builders had offered to do it for many thousand dollars less than the Clyde builders. From this we must conclude that we can build as good ships as those of any other country, and for less money per tonnage measurement.

Then we are confronted with the quarterly report of the Lloyds' Register, ending June 30th, 1900, which says that there were at the time being built in that country, two steamships for the United States, having a tonnage of 3,350 gross tons. Of course Americans can have ships built in England or in any other foreign country, but under the act of 1792, which is in full force, and may it never be repealed, no foreign built bottom, unless by special act of Congress, can be documented in this country, or registered in an American custom house, float the American flag, or receive American protection.

Of course American citizens are at liberty to purchase foreign ships, and own them, but they cannot receive the protection from this Government that is afforded to American built bottoms.

The act of 1792 was varied in the case of the City of Paris, and the City of New York, which was a mistake, but it was done partly on the grounds that they were largely owned by our people, and they carried the American mails, and were well paid for it.

Sandusky, O.

S. C. WHEELER.

BESSEMER ORES IN DEMAND.

While the iron ore deposits of the Lake Superior region are generally described as "practically inexhaustible," the fact is well known to the keenest gentleman in the ore producing business, that the annual tonnage being sent out for the past few years, has developed a few thing that must not be under estimated. We are now sending out something like twenty million tons, as against a single million not so many years ago. It is the divulging of no secret to say that the fancy Bessemer ores of the older ranges are fast disappearing, having been shipped in seasons gone by, and it is apparent to those who keep well informed upon the conditions of the mines that the consumers of iron ores will have soon to be satisfied with ores containing more of phosphorus

and less of iron than they have been in the habit of using and insisting upon.

In the city of Ishpeming the Lake Angeline, once the pride of our town, and enjoying a national reputation for the quality of its product, is fast rounding up its fine Bessemer, there being only a few years more of shipments from this class of material in sight, or as a matter of fact, upon the company's lands in this place. The end of these once famous deposits can be seen, and the time of their exhaustion is not far distant. The old mine Hematite of the Lake Superior has been worked out, and the lake deposit of much less size is the only one thus far found to replace it. The ores beneath the old Lake Angeline basin are not yielding the percentage of Bessemer as was hoped for and expected, the Cleveland company mining a large quantity of non-Bessemer from this deposit. They have now in stock somewhere about sixty thousand tons, which will be carried over until another season.

Alfred Kidder, agent, and Thomas Walters, superintendent, of the Lake Angeline mine, are now in Canada examining a property which is reported to carry a large amount of ore of Bessemer grade. The company has also purchased the Jackpot mine on the Gogebic range, hoping to develop a profitable mine at that point, and to make up for the shortening lenses at its older property.

The Menominee range has little Bessemer ore, this coming from the Aragon, Loretta and Pewabic principally. The Gogebic is not as prolific as was hoped for, and much of its product is injured by a wrong percentage of manganese.

The giant Mesaba is not showing as much ore of Bessemer grade as was figured upon a few years ago. One mine, noted for its immense shipments, and where 100 millions of Bessemer grade ore were said to have been measured, now is reported to contain only a ninth of that quantity, while the non-Bessemer grades are of extremely poor quality. Added to this the peculiar fineness of ore structure, and it makes the property far less valuable than was formerly figured.

The Chandler and Pioneer, of the Vermilion range, are exceptions, their product holding well up and being of the finest. The Chandler, however, is fast exhausting its ore stores, and reduced outputs will be noted in a few years unless new lenses are discovered. On the other hand the Pioneer gives evidence of increasing in size for some years to come.

With the mining men fearing the Mesaba would swamp them, they are now seeking new ore deposits in Canadian soil, and already ore shipments from Michipicoten, on the Canadian side, have been commenced to the United States. There are said to be fine ores in Canada, although many of them are worthless, due to the titanium they hold. Some plan for the elimination of this will probably be found, but thus far it renders the ore unsalable.

The Michigan ranges have immense amounts of ores running better than 30 per cent. and comparing favorably with the ores of the southern fields, but at the present there is little market for it. A few mines where the ores run high in silicon have developed a market in mixture with the finer grained ores on the Mesaba range, but the great bulk of these ores will remain untouched until the better grades have been disposed of. Furnacemen will wait until every pound of the better qualities is used up before buying the poorer unless the miners insist upon their accepting a certain portion of the lean with the fat. In some instances this is being attempted, and a few miners with exceptionally high grade ores have been enabled to sell some of their lower grades by refusing to sell the fancy without some of the ordinary.

In a few years, despite the great gains which have been made to the former mining territory, there will be a cry for the fancy Bessemer which the consumers have been so persistently fed with of late, and to secure which more than one good mine was spoiled.—Iron Ore.

NOTICE TO MARINERS.

LIGHT-HOUSE ESTABLISHMENT,
OFFICE OF THE LIGHT-HOUSE INSPECTOR, 9TH DIST.,
CHICAGO, ILL., December 11, 1900.

LIGHT VESSELS NOS. 55, 56 AND 57.

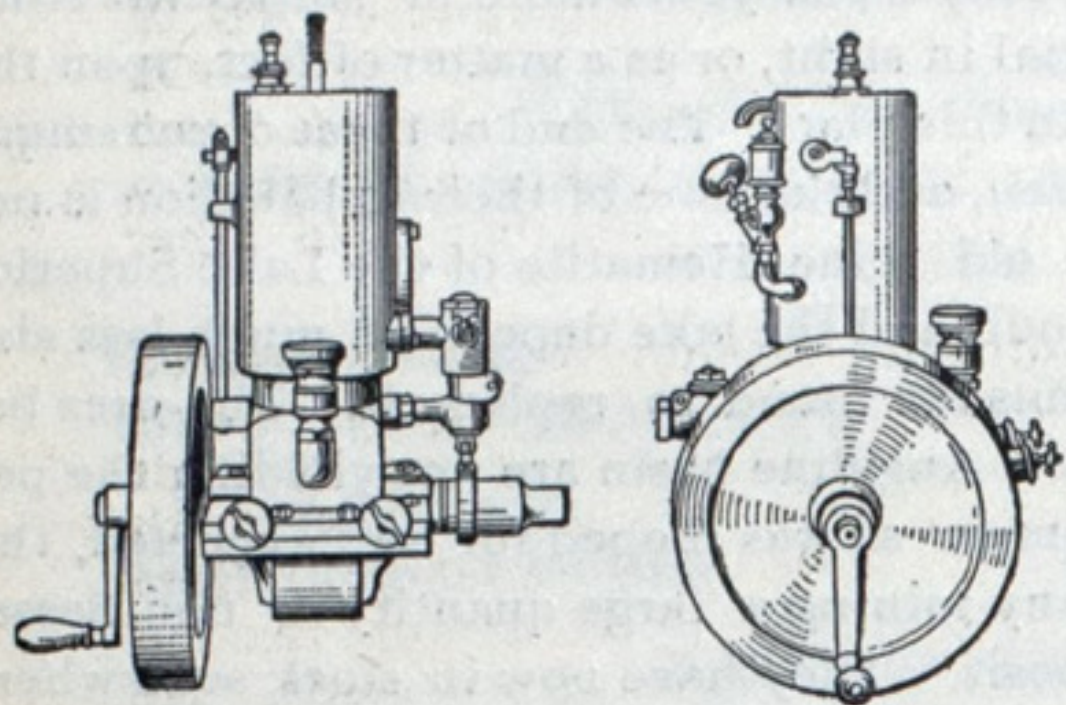
Notice is hereby given that Lansing Shoal Light Vessel No. 55, White Shoal Light Vessel No. 56 and Gray's Reef Light Vessel No. 57, have left their stations and gone into winter quarters.

By order of the Light-House Board.

F. M. SYMONDS, Commander, U. S. Navy,
Inspector 9th L. H. District.

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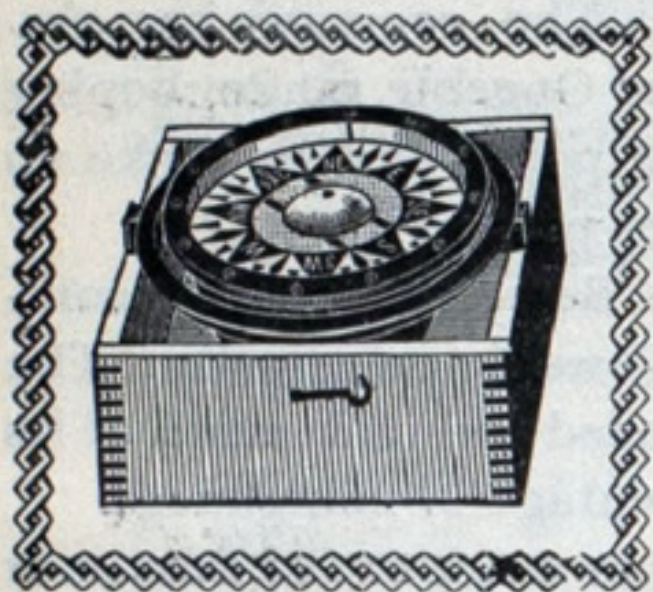
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Made in seven sizes by JOHN BLISS & CO.,
128 Front Street, New York, is finely finished
sensitive, accurate and durable. Moves quickly
and is extremely steady. Is the best Liquid Com-
pass ever made in this or any country. For sale
by ship chandlers generally.

THE SHIPPING BILL.

These are the principal provisions of the Shipping Bill, now before Congress.

Subsidies to American vessels in the foreign trade, based on gross tonnage of ships and mileage.

Subsidies are calculated to offset the difference in the cost of building and navigating American vessels compared with British vessels.

American vessels already built are subsidized for ten years; vessels to be hereafter built, for twenty years.

The maximum subsidy payable in any one year is \$9,000,000. At the present time the expenditure would be about \$4,500,000 a year.

When \$9,000,000 is reached, subsidies are to be reduced pro rata as American shipping increases.

Uniform subsidy to all American vessels of one and one-half cents a gross ton for each one hundred nautical miles, not exceeding 1,500 miles, sailed outward bound. The same rate for each one hundred miles, not exceeding 1,500, sailed homeward bound, and one cent a gross ton for each additional one hundred nautical miles sailed, on each entry, not exceeding sixteen in any twelve consecutive months.

Special rates to faster steamships, graded according to their speed, to offset the mail subsidies paid by foreign governments, varying from five-tenths of one cent a gross ton for vessels of more than 2,000 gross tons, and of twelve knots and less than fourteen knots speed, to two and three-tenths cents a gross ton for vessels of more than 10,000 gross tons and of twenty-one knots or more speed.

A ten-knot ship with a mileage of 42,000 per annum would earn \$48,300. A fifteen-knot ship, with a mileage of 63,000 miles per annum, would earn \$141,750. A twenty-one knot ship with a mileage of 88,200 miles per annum would earn \$304,290.

Admits to American registry all foreign steamships owned by Americans on January 1, 1900, and entitles such steamships to half subsidies. Before these foreign-built steamships can be registered and receive subsidy, owners must build in the United States corresponding steamships, as in the cases of the New York and Paris.

All vessels receiving subsidy are required to carry the ocean mails of the United States free of charge, and may be impressed as auxiliary cruisers of transports.

The Canadian system of bounties for deep-sea fisheries is also included in the bill.

IMPROVED AUTOMATIC ORE UNLOADERS.

Three great automatic ore unloaders, the only ones in existence, are now complete upon the Carnegie docks at Conneaut harbor, O. Next season it is expected that they will all be actively at work. For many years men connected with navigation and dock work have prophesied that there would soon be invented a machine which would reach down

into the hold of a vessel and automatically unload a great ore cargo. Others have prophesied that this machine could not be built. That such a machine, if successful, would revolutionize ore handling on the lakes all agreed.

Nearly two years ago work on the first machine of this kind was begun on Carnegie's docks. The inventor is Geo. H. Hulett, of Akron, O. Mr. Hulett went to Conneaut himself and superintended its construction. When the first one was completed and tried it was seen that some changes and improvements were necessary, but in the main it was demonstrated that, with improvements and changes, it would fill the want of every ore dock. The Carnegie Company ordered two more, and now all three, in an improved form, are ready to be placed in operation at the beginning of the season of 1901.

The total weight of each one of the automatic unloaders is 400 tons. The great "clam shell" bucket which reaches in after the ore will grasp and raise ten tons at one time. The average amount lifted by the ordinary ore buckets of the past has been about one ton to a lift, and these one-ton buckets have to be filled by a force of shovelers in the hold of the vessel.

The "clam shell" is attached to a revolving pendulum leg. After being lowered to the ore in vessels, this great shovel is operated by hydraulic power. When full it is raised above the vessel and carried to a point over the stock piles or over a car and dumped in an instant by opening the bucket.

It is estimated that this machine can take out from 90 to 95 per cent. of a vessel's cargo. This does away with the work of many men. It requires but six men to operate one of the machines. All three of the machines can work in a vessel at one time. Each one, it is expected, will be able to take out 300 tons of ore per hour.

LAKE SUPERIOR LEVELS.

The mean level of Lake Superior in November, by the U. S. gauge at Marquette, was 1.76 feet above low water datum. This is 0.03 ft. lower than for the preceding month, whereas under normal conditions the water should have fallen 0.15 October to November. At Duluth the fall was greater, being 0.27 ft., but this was mainly due to a change in the prevailing winds, which were from the northeast in October and from the northwest in November. Marquette being near the middle of the lake is comparatively free from fluctuations due to winds.

The state for last month was 0.24 higher than in November, 1899, a year ago, and is 1.11 higher than the average November stage for the 26 years from 1872 to 1897.

The rainfall for the month, according to U. S. forecast officer Richardson, was 0.54 inch, which is 1.02 less than the normal.

J. H. DARLING,
U. S. Asst. Engineer.

SHIP CONSTRUCTION.

The rapid growth of steel ship construction on the seaboard of the United States, together with the demand for American steel in British shipyards, which is now assuming important proportions, are giving the committee of Lloyd's Register in London employment for many more surveyors than have hitherto been required on this side. Mr. Herbert, who for three years past has been testing steel at Carnegie's, in Pittsburgh, has now been promoted to be a ship surveyor at New York in addition to Messrs. Congdon and Mancor, who have for a long time past been doing the duty at that port. Mr. McGregor, of W. Hartlepool, succeeds Mr. Herbert at Pittsburgh, Mr. Farrar of Middlesborough-on-Tees is appointed as tester of steel manufactured in the Philadelphia district, for ship and boilers classed at Lloyds, and Mr. McAustan, of Belfast, has been appointed ship surveyor at Philadelphia, to inspect the large steamer building to class at Lloyds in that port as well as at Wilmington, Del., and Camden, N. J.

Mr. G. Stanbury, senior assistant to Mr. Cornish, chief ship surveyor, has just arrived at New York to represent his chief on the spot, in regard to the large developments now taking place in ship construction, and the export of steel to British shipyards. Mr. Stanbury's important duties will probably occupy him about six months on this side.

THE D. Van Nostrand Company, New York, publish "A Manual of Naval Architecture" for use of the British Royal navy, officers of the mercantile marine, yachtsmen, ship-owners and shipbuilders, by Sir W. H. White, Assistant Controller and Director of Naval Construction in the Royal Navy, and fellow and officer of many societies. This is the fifth edition of this work, which is authorized for issue to the British navy by the Lords' Commissioners of the Admiralty. It was first published in 1877 and grew out of lectures at the Royal Naval College, intended to explain some of the problems of naval architecture in a manner intelligible to those interested in or connected with shipping, but not engaged as naval architects or shipbuilders. In this edition, while the general arrangement previously adopted has been maintained, a large portion of the book has been rewritten, and it has been considerably increased in size. All the sections have been revised and brought up to date. The section dealing with the steamship propulsion is practically a new and extended treatment of this important subject. In the chapter on sailing ships will be found a careful compilation of the latest investigations of the laws of wind pressure. This book has had a wide circulation in Great Britain and elsewhere. In addition to the British admiralty's approval of it as a text book for officers, the naval authorities of Italy and Germany have similarly approved of translations of the work.

THE SUBSIDY BILL.

President James J. Hill, of the the Great Northern Railway, as the guest of the Bankers' Club at the monthly dinner last Saturday night, was expected to speak on the subsidy bill now pending in Congress, but his remarks were extemporaneous and brief.

Mr. Hill spoke at considerable length, discussing matters on interstate and internal commerce, and in the first part of his remarks he merely alluded to the subsidy bill by saying that he had made some inquiry concerning the building of boats in this country and upon the Clyde, and found that he could have them constructed in this country at a much lower figure than in Scotland. This, he declared, did not look as though a subsidy was needed for shipping. If such a measure were passed, it would, in his opinion, assist those who needed least assistance, and he mentioned the "ocean greyhound" as those most likely to be benefited. He then branched out into a talk on the manner of controlling railroads by legislature, and declared the matter was one that none but experts understood; that railroads could not be more properly handled in this way than a broken limb could be set by statute. In the close of his speech he came again to the subsidy bill, and said again concerning it: "It is an excellent thing if it is not abused. I believe that if we could pay a tonnage on the actual commodities of a certain kind, based on the distance carried, there would be some justice in a subsidy. I analyzed the first bill that was drawn, carefully, and found that out of \$9,000,000, about \$7,000,000 went to what is known as the "American Line," a good friend of mine and nice gentlemen. They are always very kind to me when I am crossing. At the same time why should we as a nation pay nine millions a year for thirty years and have seven-eighths of it go to 10 or 12 ships. I am glad to say that when attention was called to this the bill was amended, and is now in much better shape. The nine millions is to be distributed pro rata among all the ships that hail under the American flag, and they have set apart 30 per cent. of the appropriation for the Pacific ocean. No doubt some of my friends thought they were serving me, and in one sense perhaps they were, but I would much rather see them take the duty off plates that are to go into the ships when they are built. When Congress appropriates \$180,000,000 for a class of ships that will reduce the cost of carrying our commerce, we will have a right to feel that they have done well, but we do not think that they should give the bulk of it to 20 or 21 ships that are only compelled to run 21 knots once, to the satisfaction of the government officials detailed for that purpose."

LLOYD'S AND LUKENS.

A rumor has been afloat this week to the effect that Lloyd's officials at Belfast have rejected some 700 tons of American ship plates, and no doubt as the Carnegie Company has been shipping plates to Belfast their name has been connected with the matter. The facts are old, but nevertheless have not been accurately stated. The material was not made by Carnegies, but by the Lukens Iron & Steel Co., who shipped the material without a Lloyd's certificate, in

blissful ignorance of the methods and power of that organization. The material may be, and probably is, up to specifications, but in the meantime the Lukens Co., who must be young at the "export" business, will have had a useful experience.—Iron and Coal Trade Review.

A NATIONAL MARITIME CONGRESS.*

COPY OF GOV. CHANDLER'S OFFICIAL CALL.

STATE OF GEORGIA, EXECUTIVE DEPARTMENT, ATLANTA.

Impressed with the importance of creating an interest in the maritime business of the United States, and a sentiment that may tend to restore its former prestige as a great carrying power, I have deemed it proper to issue a call for a National Maritime Congress to assemble at Brunswick, Georgia, on the 30th day of January, 1901.

In the interest, therefore, of patriotism and the commercial welfare of the citizens of the United States, I trust the object of this call will receive that consideration from those who feel an interest in the promotion of the maritime greatness of our country, to which its importance entitles it.

For information as to the work proposed by this Congress, parties interested may address Hon. C. D. Ogg, Secretary of the Board of Trade, Brunswick, Georgia.

Given under my hand and the seal of the executive Department at the Capitol, in the City of Atlanta, this 19th day of November, in the year of our Lord 1900.

(Signed) A. D. CANDLER, Governor.

EXECUTIVE CHAMBERS, STATE OF FLA., Nov. 24th, 1900. COL. T. T. WRIGHT,

MY DEAR SIR:—Permit me to thank you, and the gentlemen of the Brunswick Board of Trade, for the courteous invitation to attend the National Maritime Congress, called by His Excellency, the Governor of Georgia, to assemble at Brunswick, Ga., on the 30th day of January next.

I heartily endorse the object for which this Congress is called. The restoration of the merchant marine of the United States to its former prestige should enlist the earnest support of every patriotic American.

With best wishes for the success of this important Congress, I am, Faithfully yours,

(Signed) W. D. BLOXHAM,

Governor of the State of Florida.

P. S.—Your own words, Col. Wright, are timely "as the first ocean steamer was built at and sailed from a Georgia port, and the first shipyard in America was established at a Florida port, it is fitting that this National Maritime Congress should assemble at a Southern port."

Please note. Three delegates from Chamber of Commerce, Board of Trade or Commercial Association, also one delegate from ship building firms, are eligible as delegates.

HYDROGRAPHIC OFFICE NOTES.

LAKE SUPERIOR—Big Sable Light Station—Fog Signal Out of Order.—The fog signal at the Big Sable light station, south shore Lake Superior, is out of order. It is doubtful if it can be repaired, and mariners are warned that this fog signal cannot be relied upon until further notice.

LAKE MICHIGAN—Sturgeon Bay Canal—Obstruction to Navigation—Caution.—Notice has been given that a scow loaded with stone sank in Sturgeon Bay canal, abreast of the light-house keeper's residence, and constitutes a menace to navigation. Masters of vessels are warned accordingly.

LAKE MICHIGAN—Wind Point (Racine Point) Light Station—Alteration in Fog Signal.—On or about December 8, 1900, a siren operated by compressed air will be established at the station on Wind Point, western side of Lake Michigan, to sound, during thick or foggy weather, blasts of three seconds duration, separated by silent intervals of twenty-

seven seconds. The fog signal building is a buff brick structure located about 160 feet northeastward from the light-house. On the same date the 10-inch steam whistle heretofore sounded at this station during thick or foggy weather will be discontinued. Attention is invited to the difference between the characteristics of the new and the old signal.

LAKE MICHIGAN—Chicago—Outer Breakwater (N.W. End) Light Station—Alteration in Character of Light.—On or about December 8, 1900, the light will be changed from fixed white to fixed red at the station on the northwestern end of the outer breakwater, Chicago harbor. No other change will be made.

ST. CLAIR RIVER—Middle Ground Shoal—Decreased Depth of Water.—The master of the steamer Boston reports that on November 19, 1900, while bound down the St. Clair river, his vessel struck on the north end of the shoal south of the Middle Ground, opposite St. Clair, Michigan, from which the red buoy on the south end of the Middle Ground bears N. 45° W. true (N.W. mag.), distant 250 yards. He found but 14 feet 6 inches at this point.

By order of the Bureau of Equipment,

C. C. TODD,

Commander, U. S. N., Hydrographer.

NOTE.—Copies of these notices can be obtained by mariners free of charge by applying to the Hydrographic Office, to one of the branch offices, or to any of the agencies in sea-board or lake ports. They are also on file in all U. S. Consulates, where every facility will be afforded for their inspection. Ship-masters are especially requested to inform the Hydrographic Office immediately of any newly discovered danger to navigation, or of the establishment or change of any aid to navigation.

MARINE PATENTS.

Patents issued December 4, 1900. Reported especially for the MARINE RECORD. We furnish complete copies of patents at the rate of 10 cents each.

663,059. Automatic electrical apparatus for indicating leaks in ships. W. W. Zvorikin and S. D. Blumenthal, Moscow, Russia.

663,172. Life boat. Marius P. Hoy, Tacoma, Washington, assignor of one half to Chauncey S. Upright, same place.

663,173. Means for ventilating boats. 663,174. Anchor mechanism for boats. Marius P. Hoy, assignor of one-half to Chauncey S. Upright, of same place.

663,180. Means for cleaning and painting or treating surfaces submerged in water. David Mason, New York City.

663,185. Marine Motor. Albert T. Otto, New York City.

663,281. Process of painting metal surfaces. Robert Kopp, Washington, D. C., assignor to the Kopp Anti-Corrosive and Anti-Barnacle Paint Co., of same place.



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STEREO Binocular Glasses
Used by the Armies and Navies of the world. Power of a telescope. Size of an opera glass. Invaluable for tourists, sportsmen and every-day use.
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J. G. KEITH & CO., - 138 Rialto Building, Chicago, Ill.
LA SALLE & CO., Board of Trade Building, Duluth, Minn.

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Victor Signal,
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Renown Engine Oil,
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are trade mark brands manufactured by the

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LEHIGH COAL CO.

J. T. CONNERY, Manager. ARCHIE J. HITCHCOCK, Dock Supt.

MAIN OFFICE: 1238-1242 Chicago Stock Exchange Building.

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FUEL DOCKS: No. 1, Michigan Slip and Basin. 'Phone 3046, Main.
FUEL LIGHTER: No. 2, N. Halstead St. Bridge. 'Phone 773, North.
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WE PRODUCE OUR YOUGHIOGHENY COAL
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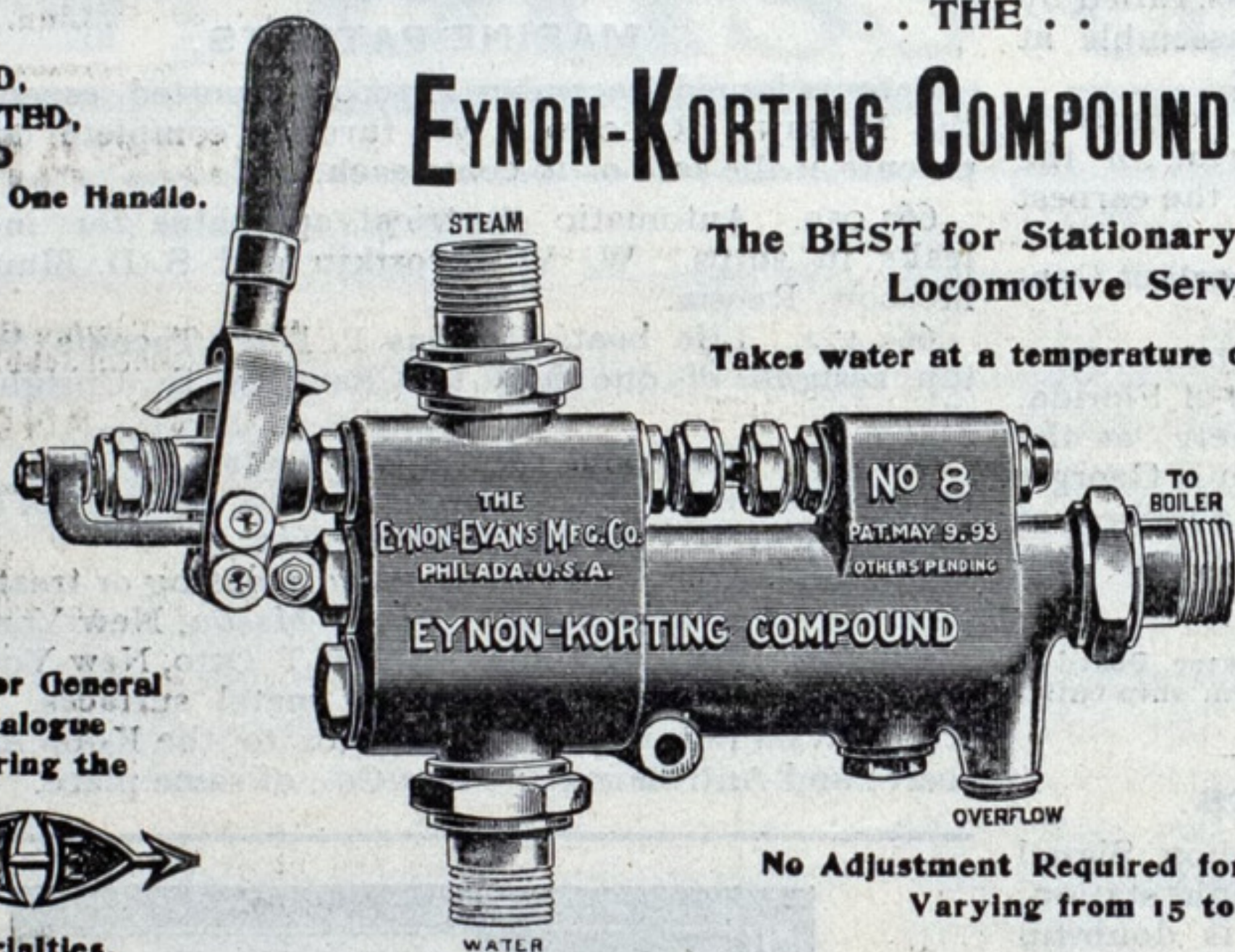
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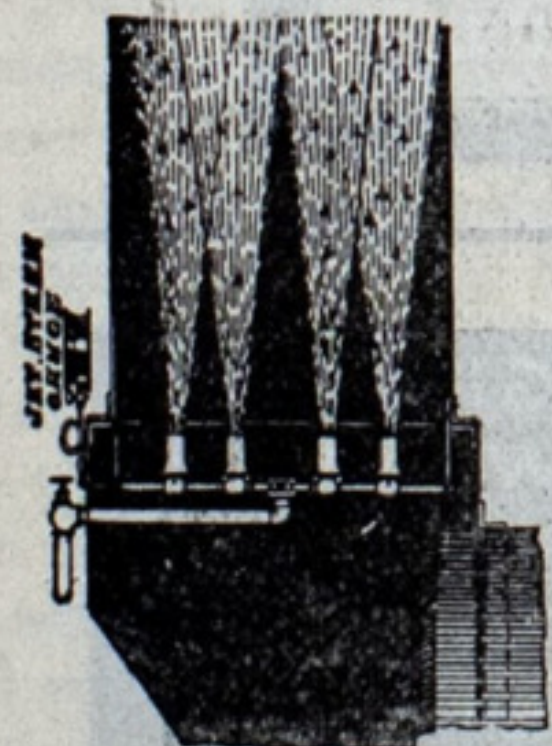
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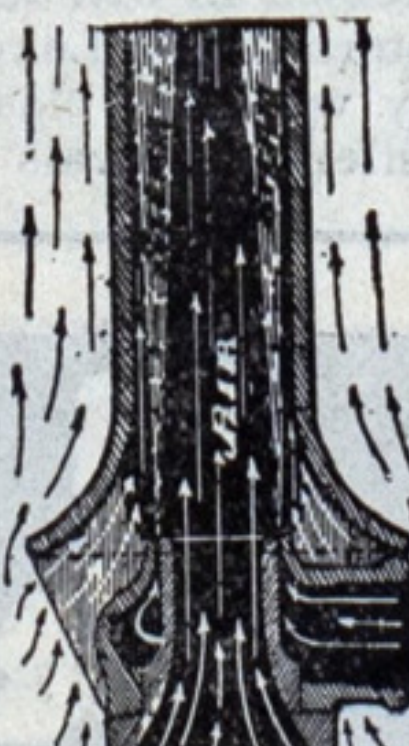
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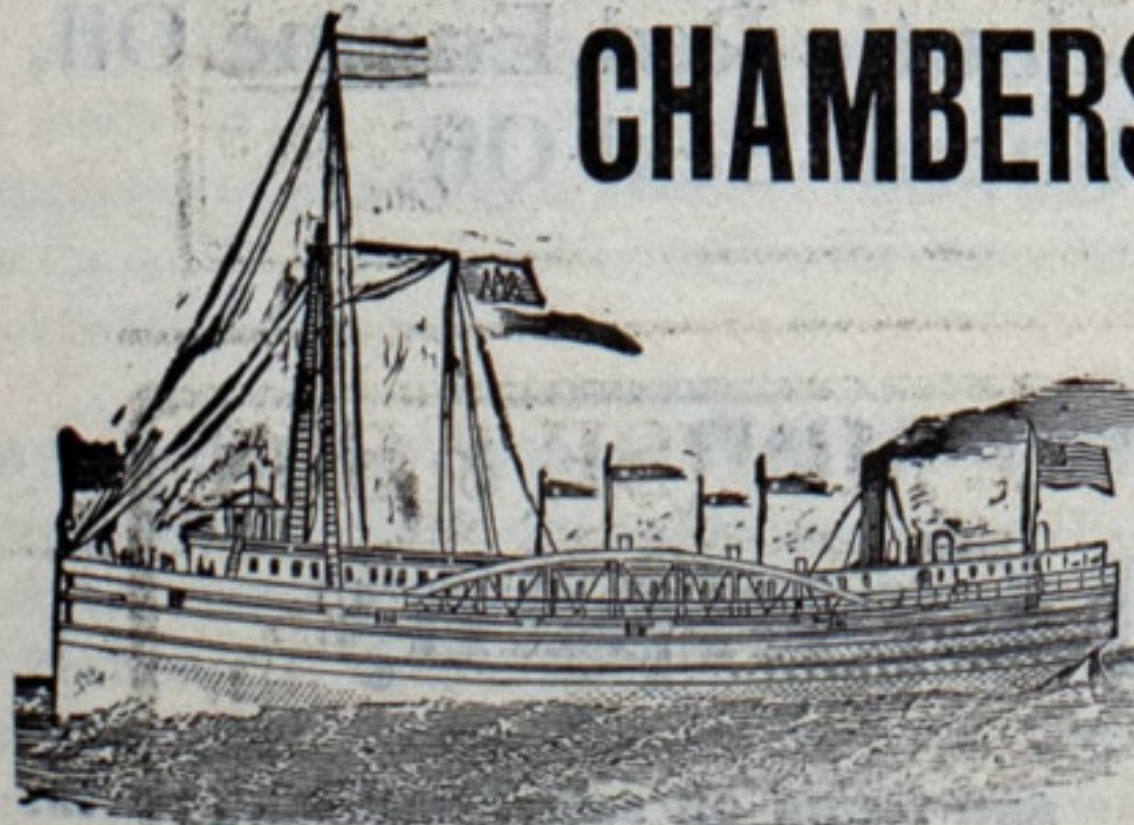
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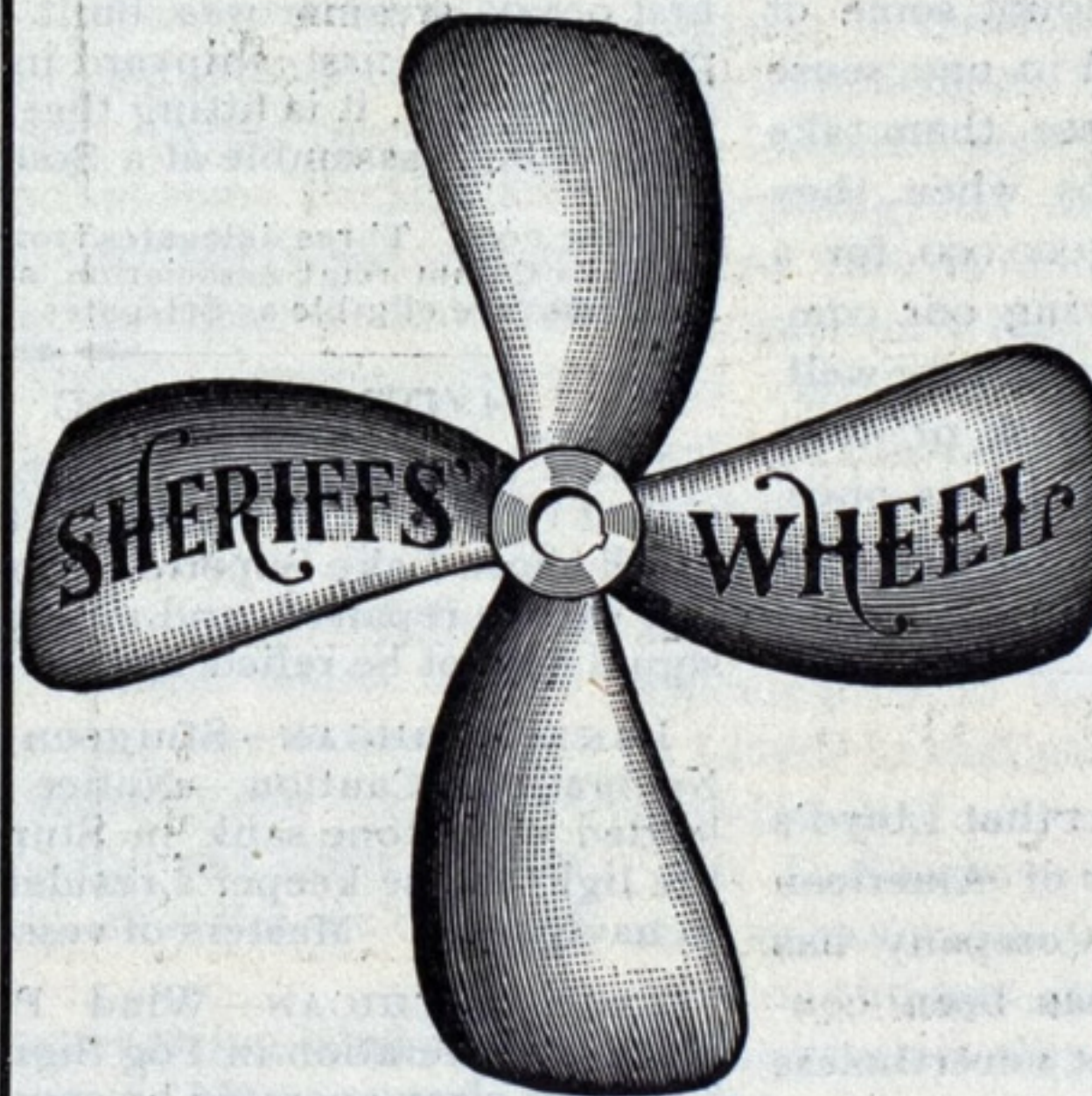
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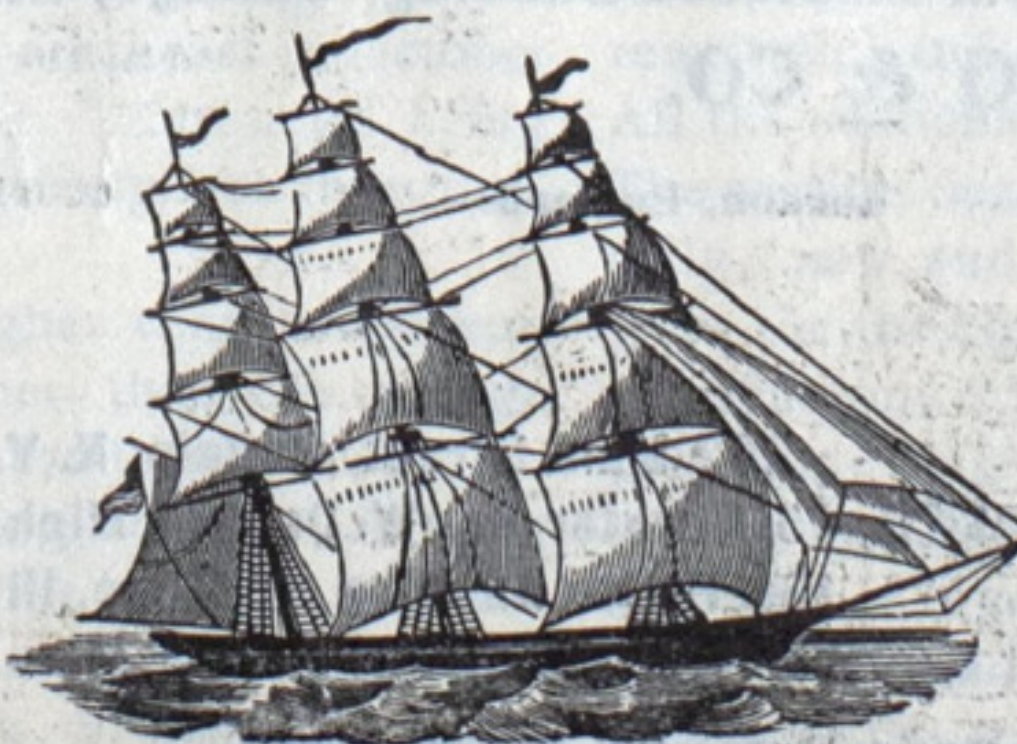
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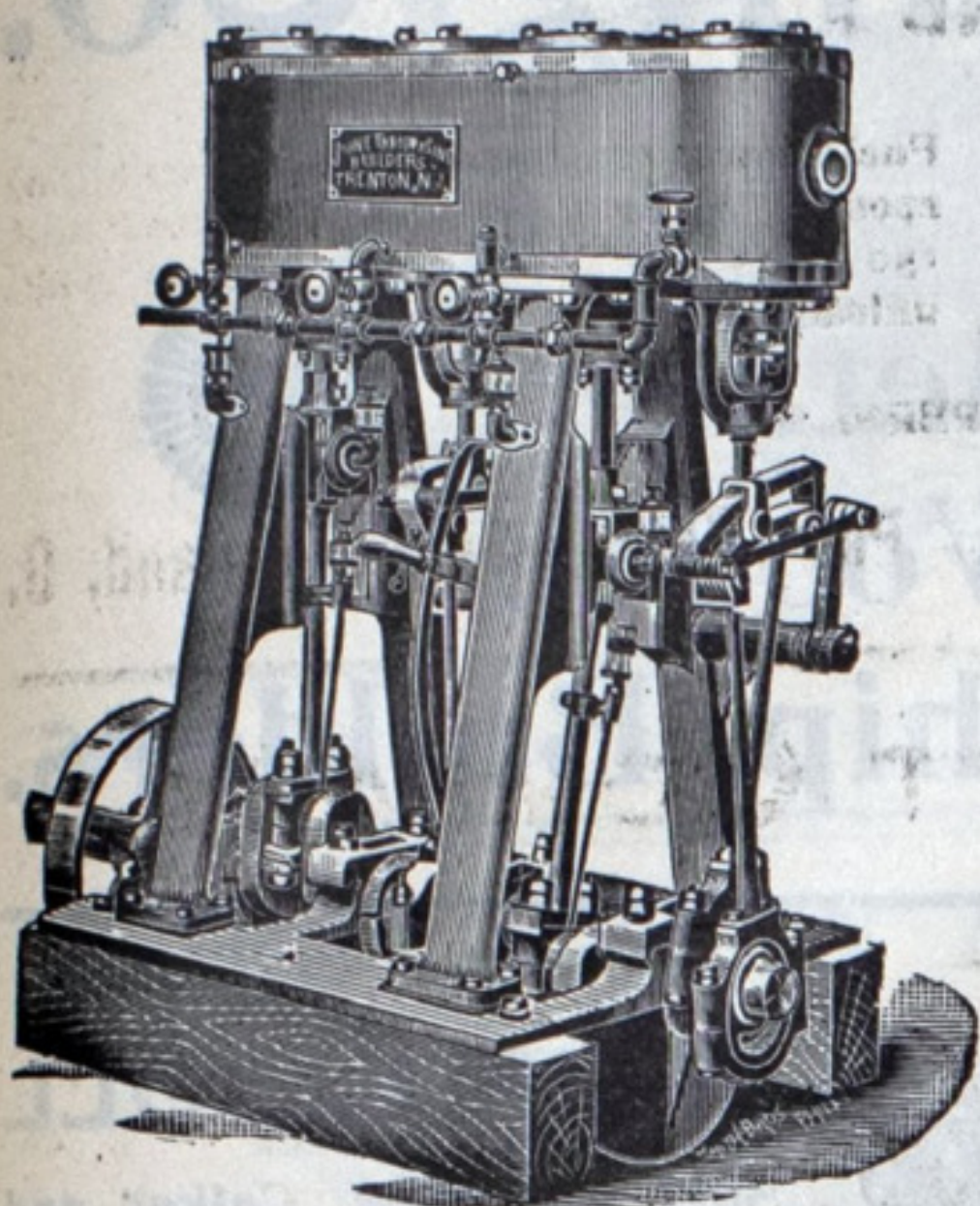
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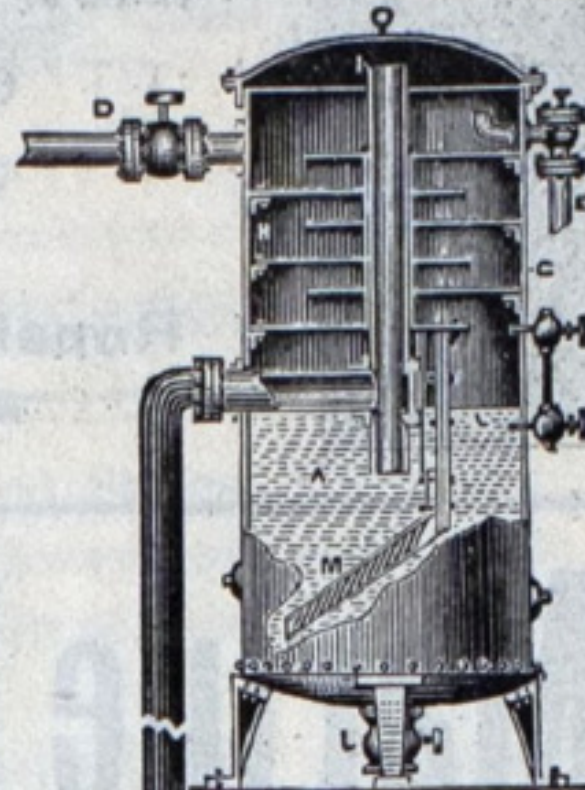
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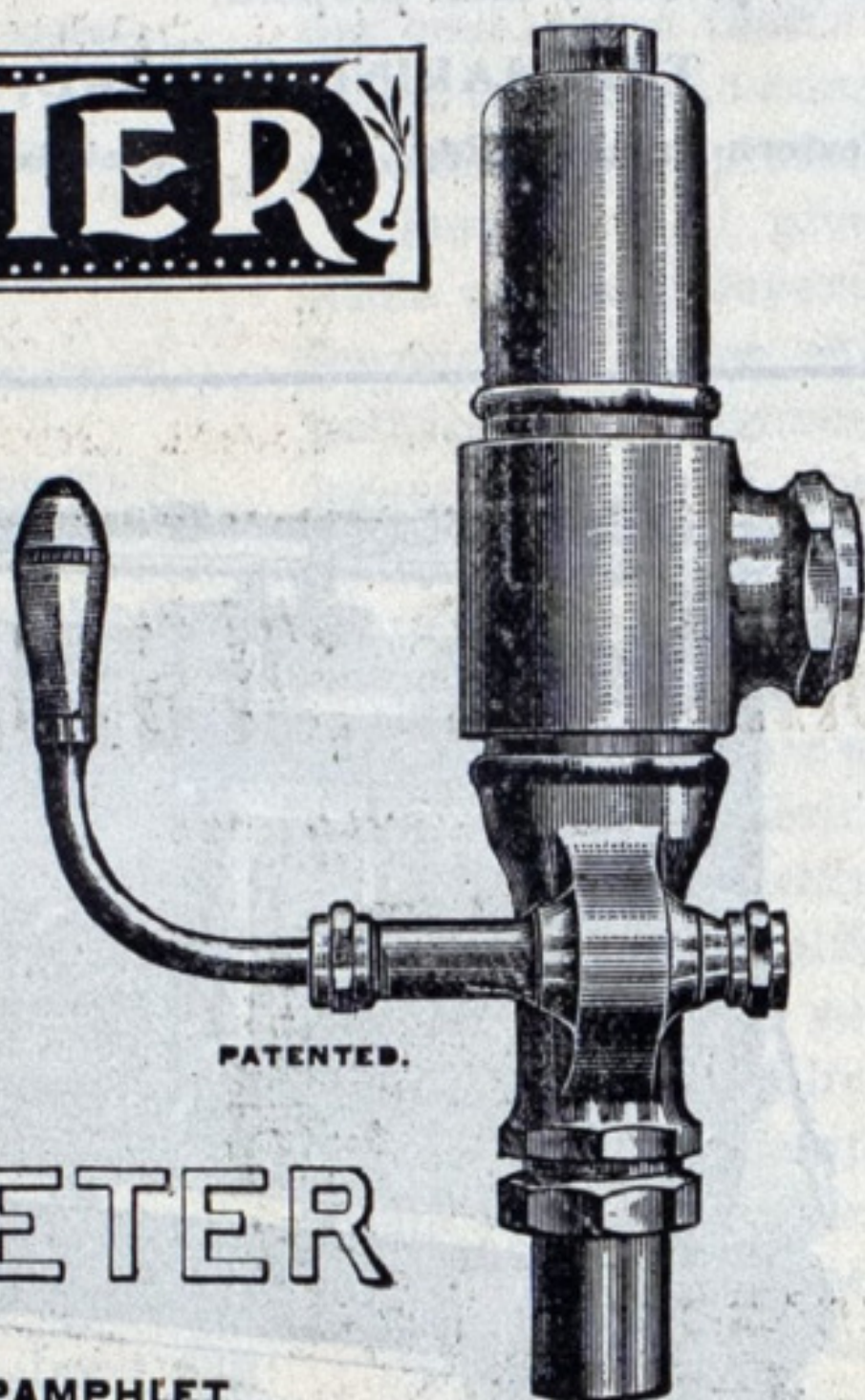
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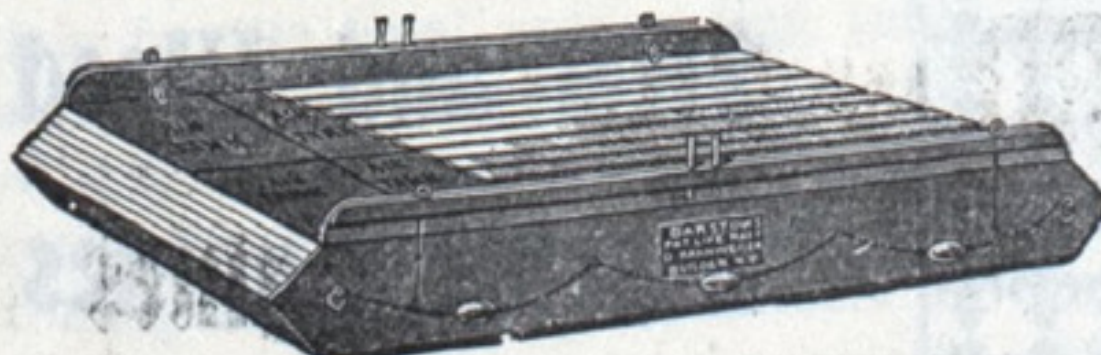
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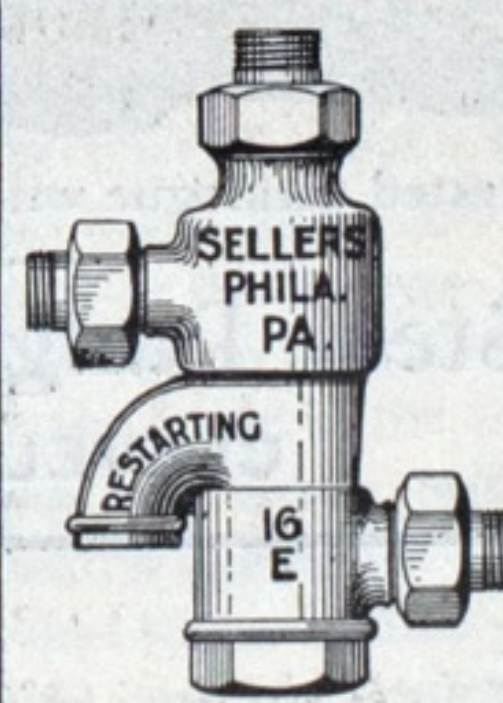
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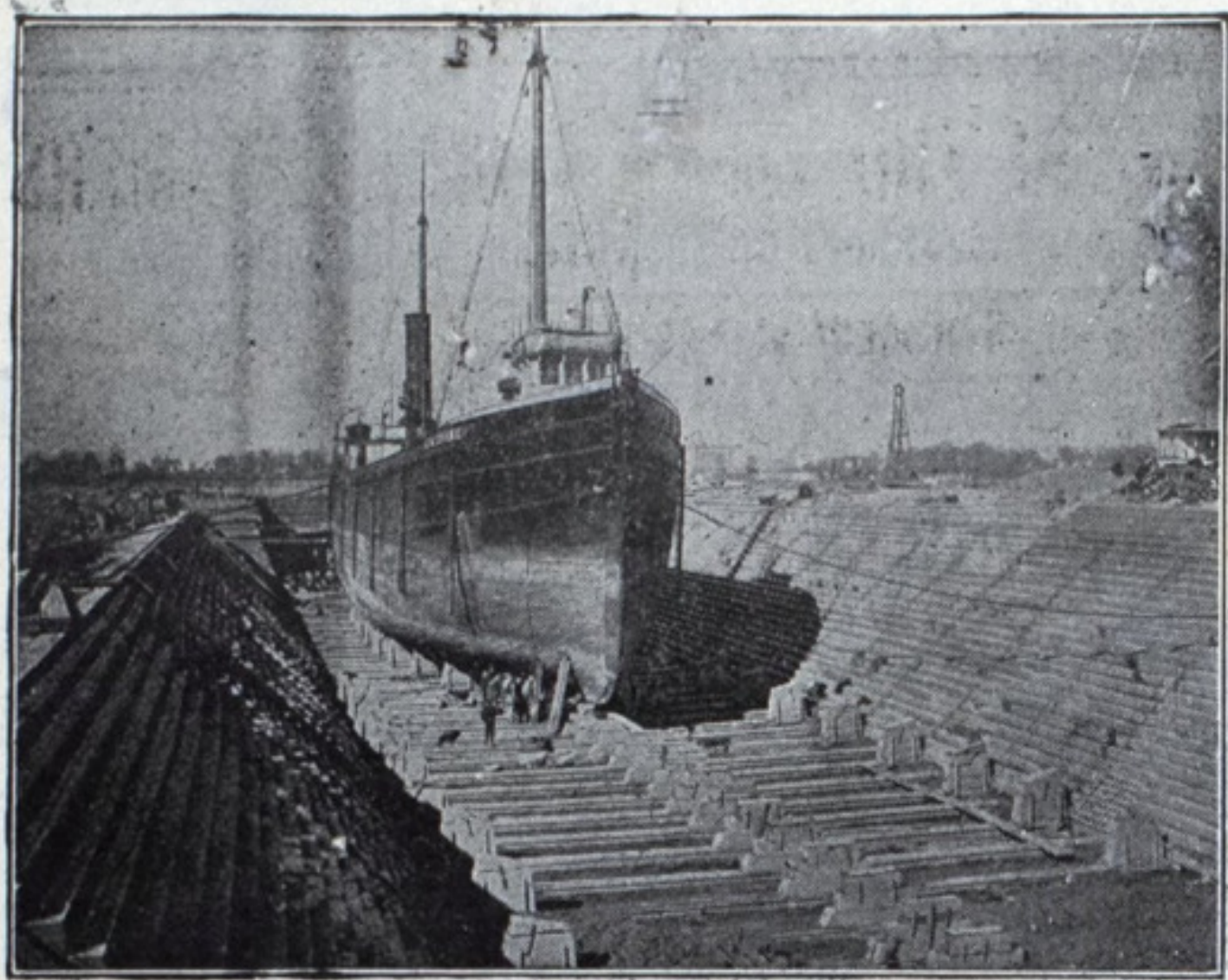
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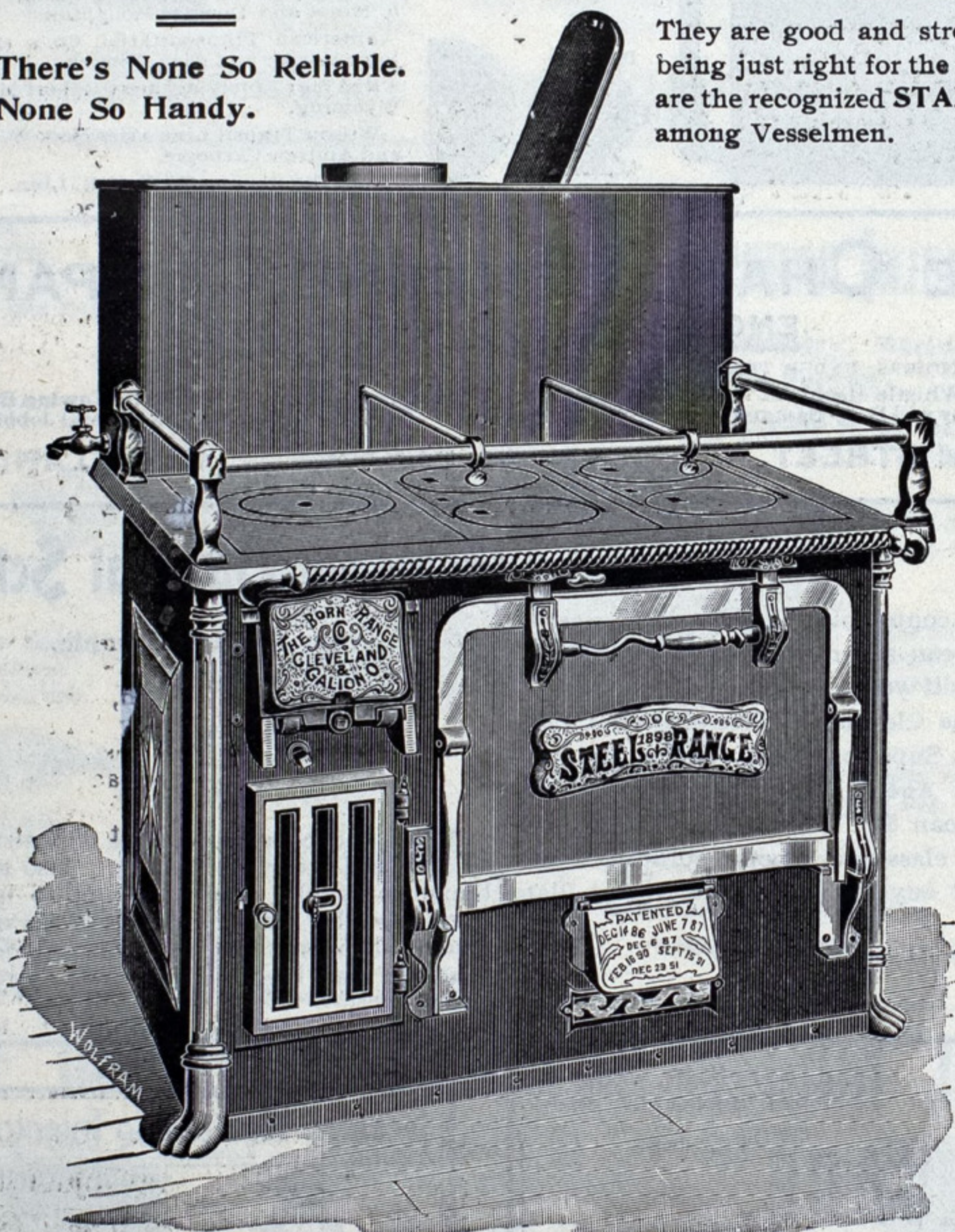
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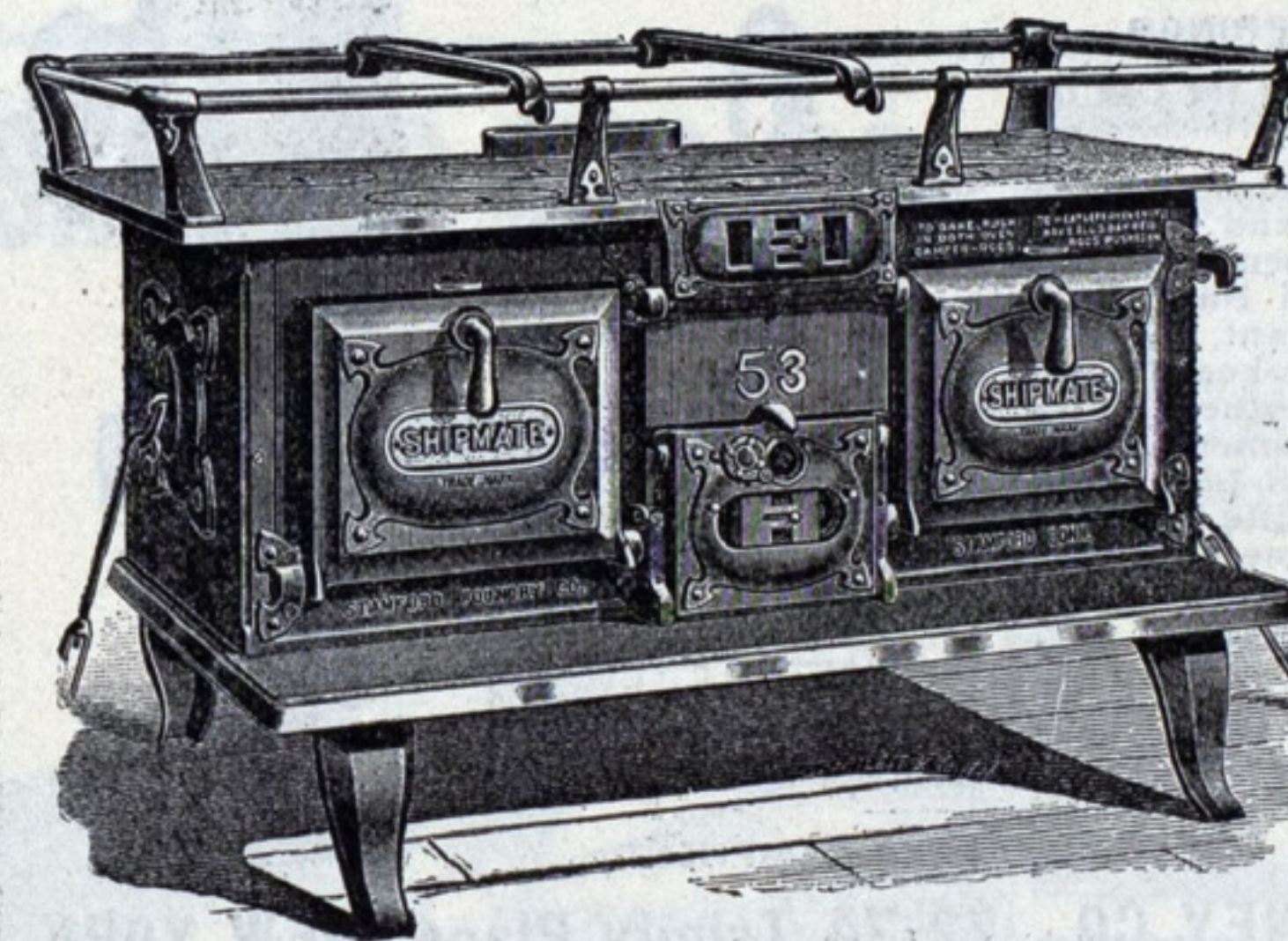


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